#### **Historic, Archive Document**

Do not assume content reflects current scientific knowledge, policies, or practices.



aSF83 .U6C76 1990 v.1



United States Department of Agriculture

National Agricultural Library

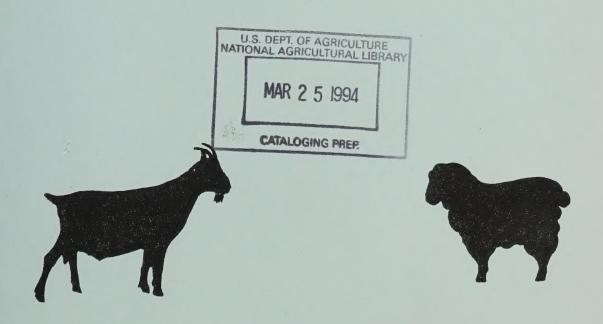


a SF 83 . U6C74 1990 v. l

# CSRS Report of Research Activities to Livestock Industries

### **Sheep and Goats**

1982 - 1990





CSRS

Sheep and Goat Disease Research Funding
1982 - 1990

Special Grants

Competitive Grants

Hatch Formula

1433 Formula

# ANTHAL HEALTH SPECIAL RESEARCH GRANTS FISCAL TRAR 1990

Reptratory Diseases   42   6   14x   \$5,834.430   \$793,964   Beef \$494,042   Respiratory Diseases   38   8   21x   \$4,933,150   \$1,105,878   Dairy \$299,922   Dairy \$299,922   Dairy \$2393,175   Dairy \$299,922   Dairy \$2393,175   Dairy \$2393,175	Area	Number of Proposals	Proposals Funded	Success	Amount	Amount	Commodity
42         6         14x         \$5,834.430         \$793,954         Beef           38         8         21x         \$4,933,150         \$1,105,878         Dairy           26         3         12x         \$3,275,132         \$344,670         Beef           16         0         0x         \$2,399,048         0         Baef           17         \$2,485,014         \$343,987         Beef           17         \$2,485,014         \$343,987         Beef           17         \$2,088,460         \$247,086         Beef           17         \$2,088,460         \$247,086         Beef           18         3         17x         \$2,088,460         \$247,086         Beef           18         \$         \$26,789,076         \$443,114         \$28,43,114         \$28,43,114         \$28,43,114         \$28,43,114         \$28,43,114         \$28,43,114         \$28,43,114         \$28,43,114         \$28,43,114         \$28,43,114         \$28,43,114         \$28,43,43,114         \$28,43,43,414         \$28,43,43,414         \$28,43,43,43         \$28,43,43,43         \$28,43,43,43         \$28,43,43,43         \$28,43,43,43         \$28,43,43,43         \$28,43,43,43         \$28,43,43,43         \$28,43,43,43         \$28,43,43,43 <t< td=""><td>AND DAIRY CATTLE</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	AND DAIRY CATTLE						
38         212         \$4,933,150         \$1,105,878         Dairy           26         3         12x         \$3,275,132         \$344,670         Beef Dairy           16         0         0x         \$2,399,048         0         Beef Dairy           18         3         17x         \$2,485,014         \$343,987         Beef Dairy           17         2         12x         \$2,088,460         \$247,086         Beef Dairy           14         4         5         \$2,088,460         \$247,086         Beef Dairy           14         4         5         \$2,088,460         \$247,086         Beef Dairy           15         5         \$2,088,460         \$247,086         Beef Dairy           16         6         \$2,52         \$2,088,460         \$243,114         \$2           18         \$5         \$5,799         \$243,114         \$2         \$2           18         \$5         \$5,799         \$2	ductive Diseases	42	9	14%	\$5,834.430	\$793,964	
26       3       12x       \$3,275,132       \$344,670       Beef Dairy Beef Dai	ratory Diseases	38	80	21%	\$4,933,150	\$1,105,878	
26         3         12x         \$3,275,132         \$344,670         Beef Dairy Beef D							
16         0         0%         \$2,399,048         0         Beef           18         3         17%         \$2,485,014         \$343,987         Beef           17         2         12%         \$2,088,460         \$247,086         Beef           13         2         25%         \$1,600,145         \$421,980         Beef           14         4         0         8%         \$56,791         \$243,314         \$25,731           18         3         17%         \$1,988,061         \$396,895         104a1         \$26,731           16         0         8%         \$51,838,917         \$227,895         104a1         \$26,730           18         3         17%         \$1,988,061         \$396,895         104a1         \$26,730           16         0         8%         \$1,838,917         \$227,895         104a1         \$26,730           17         \$1,988,061         \$396,895         50         104a1         \$26,730         \$26,730         \$26,730         \$26,730         \$26,730         \$26,730         \$26,730         \$26,730         \$26,700         \$26,730         \$26,730         \$26,730         \$26,730         \$26,730         \$26,730         \$26,730 <t< td=""><td>10 Diseases</td><td>76</td><td>m</td><td>12%</td><td>\$3,275,132</td><td>\$344,670</td><td></td></t<>	10 Diseases	76	m	12%	\$3,275,132	\$344,670	
18       3       172       \$2,485,014       \$343,987       Beef S4       \$34,3987       Beef S4       \$34,837       \$24,318       \$24,318       \$24,318       \$24,3114       \$24,314,314 <th< td=""><td></td><td>16</td><td>0</td><td>%0</td><td>\$2,399,048</td><td>0</td><td></td></th<>		16	0	%0	\$2,399,048	0	
17 2 112x \$2,088,460 \$247,086 Beef Dairy \$247, 831		18	e	17%	\$2,485,014	\$343,987	\$34
12	V		2	12%	\$2,088,460	\$247,086	7765
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	5.						**
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	ic Diseases ratory Diseases ductive Diseases		m40	28% 28%	\$1,600,145	\$421,980 \$443,114	
18317%\$1,988,061\$396,8951½2 $18\%$ \$1,528,017\$227,89550 $0\%$ \$744,710 $0$ 123 $25\%$ \$1,615,446\$267,004192 $11\%$ \$2,053,444\$160,20262 $33\%$ \$514,225\$106,802194 $21\%$ \$2,572,392\$480,607	letal Diseases itic Diseases		00	*** ©	\$ 526,791 \$ 439,356		
18317%\$1,988,061\$396,8951 $\frac{1}{6}$ $\frac{2}{6}$ $\frac{1}{18}$ $\frac{1}{5}$ $\frac{1}{528}$ $\frac{1}{925}$ \$227,895500% $\frac{1}{5}$ $\frac{1}{6}$ total12325%\$1,615,446\$267,004total19211%\$2,053,444\$160,202total6233%\$514,225\$106,802total19421%\$2,572,392\$480,607total2934515%\$37,526,642\$26,072\$55	RY						total \$865,094
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	ratory Diseases		က	271	\$1,988,061	\$396,895	
5 0 0 0% \$ 744,710 0 total 12 3 25% \$1,615,446 \$2267,004 19 2 11% \$2,053,444 \$160,202 total 6 2 33% \$ 514,225 \$106,802 total 19 4 21% \$2,572,392 \$480,607 total 293 45 15% \$37,526,642	unologic Diseases ic Diseases		07	18%	\$1,528 017	\$227,895	
12   3   25%   \$1,615,446   \$267,004   total	eases		0	%0	\$ 744,710	0 0	
E 6 2 33% \$ 514,225 \$106,802 total total 293 445 15% 45 15% 45		12	m	25%	\$17 517 19	000	
E     6     2     33%     \$ 514,225     \$106,802     total       19     4     21%     \$2,572,392     \$480,607     total       293     45     15%     \$37,526,642     \$55		19	2	112	\$2,013,440	\$160 202	
19 45 15x \$37,526,642	ILTURE	بو	•		ī	707 10016	
293 45 15x \$37,526,642 tota	ELLA	19	7 4	33 <b>x</b> 21 <b>x</b>	\$ 514,225 \$2,572,392	\$106,802	
		293	45	152	\$37,526,642		total \$480,607 \$5,340,084

# ANIMAL HEALTH AND AQUACULTURE RESEARCH SPECIAL RESEARCH GRANTS

#### Allocations of Funds by Panels Fiscal Year 1989

Panel 1	Beef and Dairy Cattle	1988 Allocation	1989 Allocation	1990 Allocation
ranei i	Reproduction Diseases	879,185	791,266	793,964
		0,7,200	, , , , , ,	773,704
Panel 2	Beef and Dairy Cattle	•	. ,	
	Respiratory Diseases	1,235,788	1,112,209	1,105,878
Panel 3	Beef and Dairy Cattle			
ranez 3	Enteric Diseases	135,000	481,302	344,670
	Metabolic Diseases	210,000	250,000	344,670
	Mastitis	265,557	120,000	247,086
	Bovine Parasitic Disease	457,557	110,000	343,987
	SUB TOTAL	3,183,087	2,864,777	2,835,585
		-,,	2,00.,	2,000,000
Panel 4	Swine Diseases			
	Enteric Diseases	446,390	533,202	421,980
	Respiratory Diseases	254,267	350,000	443,114
	Reproductive Diseases	130,705	0	0
	Other Diseases	149,973	0	0 .
	SUB TOTAL	981,335	883,202	865,094
Panel 5	Poultry Diseases			
rance 3	Respiratory Diseases	398,333	322,378	396,895
	Metabolic & Immune Diseases		135,000	227,895
	Enteric Diseases	79,751	89,909	0
	Musculo-Skeletal Diseases	0	85,489	0
	SUB TOTAL	703,084	632,776	624,790
		·	·	ŕ
Panel 6	Aquaculture			
	Aquaculture (Animal Health)		108,167	106,802
	SUB TOTAL	108,167	108,167	106,802
Panel 7	Sheep, Goat and Horse Disease	26		
ranei /	Sheep and Goat Diseases	270,417	270,417	267,004
	Horse Diseases	162,250	162,250	160,202
	SUB TOTAL	432,667	432,667	427,206
	30D 101ML	734,007	132,007	12/1200
Salmonel	la (Panels 1, 2, 3, 4, & 5)	0	486,751	980,607
Jarmoner	SUB TOTAL	0	486,751	480,607
			·	,
	ANIMAL HEALTH TOTAL	5,408,340	5,408,340.	5,340,084

# PROPERTY THE PROPERTY OF THE STREET STREET

# allocations of Frage by Pencia

	, 884		t and baing comin
	15,219		
	ę <u>,201</u>	88° . č. ( . (	
	100 100 10 - 301 10 - 301	CAR . SE I CAR . SE I CAR . SE I CAR . SE I CAR . SE I . C	fand Catrle Materi cooper Metabalie Diseases Martice Mortna Farmericke Diseases Sortna Farmericke Diseases
		888 - 588 688 - 588	a Discounces told Discounces told Discounces the Discounces
		25 606	
	674, 773 - 68 - 48 - 48 - 48 - 672 - 776		Poultry Dismuses  A Prepiratory Uncunces  Vapour & Lamer Discased  Nucric Discuss  Nucric Discuss  Nucric Discuss  Sub TOTAL
in. 400 .dl . Ti	100,467		
	11a 018 649 368		

ANUMAL HEALTH SPECTAL RESEARCH CRANTS ANARDS Piscal Years 1979-1990

Total Projects Furds	8 \$ 680,281 6 \$ 382,404 4 \$ 250,920 5 \$ 552,316 4 \$ 391,368 1 \$ 147,063 6 \$ 480,056 13 \$ 1,237,560	47 \$ 4.171 968
Projects Funds	1 \$ 84,695 0 0 0 0 0 2 \$ 182,309	3 \$ 267,004
1989 Projects Funds	2 \$ 80,000 0	4 \$ 270,417
Projects Funds	1 \$ 138,785 0	3 \$ 270,417
1979-1987 Projects Funds	4 \$ 376,801 6 \$ 382,404 4 \$ 250,920 5 \$ 552,326 4 \$ 391,368 1 \$ 147,063 6 \$ 480,056 7 \$ 492,827	37 \$ 3,073,755
Commodity and Disease	Respiratory Diseases Predator Control Reproductive Diseases Bluetorgue Caseous Lymphadenitis Contageous Ecthyma Internal Parasites Other Diseases	SUBTOTAL

#### SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH SHEEP SHEEP AND GOAT DISEASES

ORGANIZATION & Investigator

AMOUNT TITLE

GRANTS	AWARDED FOR FISCAL	YEAR 1982
Texas A & M University LIVINGSTON	\$123,179	Caseous Lymphadenitis in Small Ruminants
Ohio State University COURTNEY	\$100,699	Resistance of Exotic Breeds of Sheep to Chronic Fascioliasis
Washington State University WESCOTT	\$ 30,810	Protection of Sheep Against Haemonchosis by Prior Exposure to Ostertagia circumcincta
University of Missouri BERG	\$ 36,623	Fusobacterium necrophorum Vaccination & Zinc for Control of Foot Rot in Sheep
University of California HOWARD Total	\$ 30,809	Field Tests of Efficacy & Specificity of New Coyote Management Systems
	, , , , , , , , , , , , , , , , , , , ,	
GRANTS	AWARDED FOR FISCAL	YEAR 1983
Oregon State University SCHMITZ	\$120,000	Role of <u>Bacteriodes</u> <u>nodosus</u> Pilisin the Early Pathogenesis of Ovine Foot Rot
University of California OSBURN	\$100,000	Subunit Diagnostic Reagents of Bluetongue Virus
University of California BIBERSTEIN	\$ 54,842	Ram Epididymitis: Factors in Pathogenesis by Non-brucella Bacterial Agents
Oregon State University ZIMMERMAN	\$ 46,591	Improved Immunodiagnosis of Ovine Fascioliasis
Total	\$380,275	

#### SARABER E SEA ENGLAND AFERS SEAL DESERTE

1.773

Communa lymonadaalely a Small Rom. wole		
Residence of Facels Browle of Sharp to Throma Page of Large	080 CD18	
rester the continuer of		1980s State Maternales
godinator in the sector to a constraint and the sector is a co		Inscendil to 45
Theid Money of Alfshacy		01470 9 Pall formula
		EDIATO
Solve on Ameroodings and and the Color of the Color has been considered took has		Palestry
in eraspeof otomorphis o ne int No congress of the second		
Sem Enididemicia - Ponerva - r Pethogenesia ev Hourbeurer's Bacteriel Agench		
improved luminad 195 of uvine Resciol		

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH SHEEP AND GOAT DISEASES

ORGANIZATION &	AMOUNT	TITLE
Investigator		
GRANTS	AWARDED FOR FI	SCAL YEAR 1984
University of Alabama ROY	\$122,000	Diagnosis of Bluetongue Disease in Sheep and Characterization of Viral Antigenic Site
University of Idaho MAGEE	\$121,000	Diagnosis of Chlamydial Infections in Sheep With Monoclonal Antibodies
Washington State University CHEEVERS	\$ 77,145	Development of Diagnostic Reagents for Sheep and Goat Retroviruses
Total	\$320,145	Rectovituses
GRANTS A	WARDED FOR FIS	SCAL YEAR 1985
University of Connecticut AUGUSTINE	\$147,031	Caseous Lymphadenitis in Small Ruminants
* Washington State University YILMA	\$139,303	A Polyvalent Vaccinia Virus Recombinant Vaccine for Bluetongue
University of Wisconsin SCHULTZ	\$120,316	A Bluetongue Anti-Idiotype Vaccine
Total	\$406,650	
CD A NITTO A	HARDED DOD DEG	047 17740 1006
*	WARDED FOR FIS	CAL YEAR 1986
University of California CHUANG	\$149,945	Refinement of Genetic Probes for the Detection of Bluetongue Virus in Infected Animals
Colorado State University ELLIS	\$149,967	An Oligonucleotide Hybridization Approach to <u>Bacteroides</u> <u>nodosus</u> Pilus Typing
Louisiana State University SCHNORR	\$120,450	A Genetically Engineered Vaccine for Chlamydia-induced Polyarthritis in Sheep
* University of Florida GREINER	\$ 74,750	Epidemiology of Bluetongue Virus in Central America and the Caribbean
* Louisiana State University STORZ	\$141,971	Resistance Factors in Coronaviral Infections of Calves
Total	\$637,083	

<sup>\*</sup> also reported in Beef and Dairy Cattle Disease

particular account of the Commission of the Comm		
Osserio - «V fluoringue integera la Ser- and fighter latter (3) of Ukel Ark sacue fite		
initages TATO le atembra 15 Ania endi al combannant parbodina fundiovant		
if the are algebraiched in St Il		
A Pol alver Pererala Viron Pacorbinant Victims (et bisconpu		
pegania els. A grammanula p		
rest text	INTERNATION OF THE STATE OF THE	
TO THE PARTY OF TH		
An in the classic designation of the contract		

## ANIMAL HEALTH SPECIAL RESEARCH GRANT AWARDS RECOMMENDED FOR FUNDING - FISCAL YEAR 1987

#### Sheep and Goat Diseases

Institution	Title and Principal Investigator	Amount
U. of Ariz.	Role of Phospholipase D in Pathogenesis of Corynebacterium pseudotuberculosis GLENN SONGER	\$90,375
U. of Wisc.	Molecular Characterization of the Bluetongue Neutralizing Antigen KEVIN T. SCHULTZ	\$150,000
OR ST U.	Recombinant Vaccine for Ovine Footrot ALVIN W. SMITH	\$30,042
	Total	\$270,417

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA - ANIMAL HEALTH RESEARCH - SHEEP AND GOATS PROPOSALS RECOMMENDED FOR FUNDING - FISCAL YEAR 1988

Institution	Title and Principal Investigator	Amount
Sheep and Goats Respi	ratory Diseases	
UN of AZ	Non toxigenic Corynebacterium pseudotuberculosis and Caseous Lymphadenitis JOSEPH SONGER	\$138,785
Sheep and Goats Muscu	loskeletal Diseases	
OR ST UN	Recombinant Pilin Subunit Vaccine for Ovine Footrot ALVIN SMITH	\$ 35,872
Sheep and Goats Diges	tive and Enteric Diseases	
WA ST UN	Detection of Lentiviral Antibody and Infected Cell in Peripheral Blood WILLIAM CHEEVERS	\$ 95,760
	Total	\$270,417

ANTING ANTON CON PRESING - PRESING NO ANTANA CONTRACTOR OF AN ANTANA

#### The seal Pelos look in recombinating

Role of respondences and rechests a of formation of the control of

Melacular Char testion, on of the Black organ Mouth Light Analysa KEVIN T. SCHOOLS

Recombined Vacatue for Dulma Park ca

(11 (2) (11)

SPECTAL COLLEGE STATES THE COLLEGE THE COLLEGE AND COL

Transference for long a box a fall

Goeta Ray ratery Blockers

er and the standard of the standard of

ALTER CONTRACTOR

neonosti isia

Records for Ovine Possible

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA - ANIMAL HEALTH RESEARCH - SHEEP AND GOATS PROPOSALS RECOMMENDED FOR FUNDING - FISCAL YEAR 1989

Institution	Title and Principal Invest	igator	Amount
Sheep and Goats Respiratory Diseases			
UN of CA - DAVIS	Bluetongue Virus Detection Semen Using Polymerase Cha Reaction BENNIE I. OSBURN		\$ 40,000
CO ST UN	Immunoassay for Rapid Dete of Ovine Lentivirus Infect LEONARD D. PEARSON		\$ 40,000
Sheep and Goats Musculoskeletal Diseases			
CO ST UN	Amplification, Cloning, Se and Grouping of B. nodosus Genes ROBERT P. ELLIS		\$110,000
OR ST UN	Recombinant Pilin Subunit for Ovine Footrot ALVIN W. SMITH	Vaccine	\$ 80,417
		Total	\$270,417

This and a footmar a sme will

#### Twice at 1 Y707 63 1 93 00

Pluetoning Vierd braces

paser l'est de description de la la contraction de

respective to the second telegraphic to the second telegraphic tel

eria Rai 1

Control of the court of the control of the control

Watte W

25 -- 1

R 73 0

72 K

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA - ANIMAL HEALTH RESEARCH - SHEEP AND GOATS. PROPOSALS RECOMMENDED FOR FUNDING - FISCAL YEAR 1990

Institution	Title and Principal Investigator	Amount
Respiratory Diseases		
Iowa State Univ.	Mycoplasma ovipneumoniae and and Respiratory Disease in Lambs M. L. KAEBERLE	\$84,695
Musculoskeletal Disea	ases	
Colorado State Univ.	Molecular Analysis of Pestivirus Border Disease Virus RAMESH AKKINA	91,155
Digestive and Enteric Diseases		
Univ. of Arizona	In vitro Methods for Diagnosis of Clostridium perfringes Enterotoxemias JOSEPH GLENN SONGER	91,154
	TOTAL	\$267,004

# THE TAKES INSCRIPTION OF THE STREET AND THE STREET

Itle and Principal investigation

Trengianas originality and

Trengianas originality and

Lot Pannicology discount in terms

Lot Pannicology discount in terms

Lot Pannicology discount in terms

Malocules Aprlyalo of Cortivisms — William Burdos Disesse Virus BANASE ARELLA

To usern Mechada Par Manasala os 31:34

467 (8°) inTh.

CSRS

Animal Health Research - Special Grants

#### SHEEP and GOAT

Year	Number of Projects	Dollars
1982	5 .	\$ 322,120
1983	4	\$ 380,275
1984	3	\$ 320,145
1985	<pre>2(funded under Sheep/Goat) 1(funded under Beef/Dairy)</pre>	
1986	<pre>2(funded under Sheep/Goat) 1(funded under Beef/Dairy)</pre>	
1987	3	\$ 270,417
1988	3	\$ 270,417
1989	4	\$ 270,417
1990	3	\$ 267,004

#### 6870

#### and Pealth Auroaca - Stepla Grang

#### TAME AND THE

#### Washer of Protests

#### COMPETITIVE RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH SHEEP AND GOAT DISEASES

ORGANIZATION & Investigator

AMOUNT TITLE

GRANTS	AWARDED FOR FISCAL	YEAR 1985
Washington State University CHEEVERS	\$144,000	Structure, Organization and Expression of the CAE Virus Envelope Gene
University of Wisconsin MARSH	\$145,000	Characterization of Scrapie Agent Nucleic Acid
University of CA-Davis ADAMS	\$173,000	Endocrine Control of Ovulation in Sheep Actively Immunized
Total	\$462,000	Against GnRH
GRANTS	AWARDED FOR FISCAL	YEAR 1986
University of Alabama ROY	\$ 50,000	Bluetongue Virus Morphogenesis Using Recombinant D N A Technologies
* University of CA-Davis STOTT	\$180,000	Characterization and Synthesis of Bluetongue Virus Peptides Conferring Protective Immunity
Utah State University	\$100,000	Molecular Cloning Genome Analysis and Gene Probes of Bluetongue Viruses
Washington State University WESLEID	\$107,000	Molecular Biology of Larval Tapeworm Antigens
Colorado State University HOSSNER	\$ 75,000	Sheep Liver Binding and Degradation of Sheep Somatomedin, A Growth Regulating Hormone
Washington State University DODSON	\$100,000	Insulin-like Growth Factor Regulation of Myogenic Satellite Cells Derived from Sheep Muscles
Total	\$612,000	- Citago ita Garage

\*Also reported in Beef and Dairy Cattle Disease

5.14.1.5

#### THE REPORT OF THE STATE OF THE

en i cost turs la vitazadal crail cost

Le za militaria la mir

Le za mi

CRANTY AND SOME VISIONS OF

TO O S REPROSE ES D Nº 3

The second selection of productions of the second second selection of productions of the second seco

nation of the state of the Section of the state of the st

tago University 6107, Park Main a fields. Fin

Ros priling to the same of the

Involution of Special Property of Section of Special Property of Section of Special Property of Section 1999

# COMPETITIVE GRANTS PROGRAM AREA: SHEEP GRANTS AWARDED FOR FISCAL YEAR 1987

ORGANIZATION & Investigator	AMOUNT	TITLE
Univ. of Wisconsin Madison, WI MARSH	\$200,000	Characterization of Scrapie Agent Nucleic Acid
Colorado State Univ. Fort Collins, CO NISWENDER	\$100,000	Role of Conceptal Proteins and Prostaglandins During Eary Pregnancy in Ewes
Univ. of Minnesota St. Paul, MN WHEATON	\$100,000	Ovine Inhibin Fragments as Immunogens to Increase Fertility
TOTAL	\$400,000	

#### GRANTS AWARDED FOR FISCAL YEAR 1988

University of California D. A. Westaway	\$180,000	Molecular Genetics of Scrapie in Sheep and Cows
University of Minnesota Eric A. Wong	\$125,000	Cloning and Characterization of Ovine Insulin-Like Growth Factors

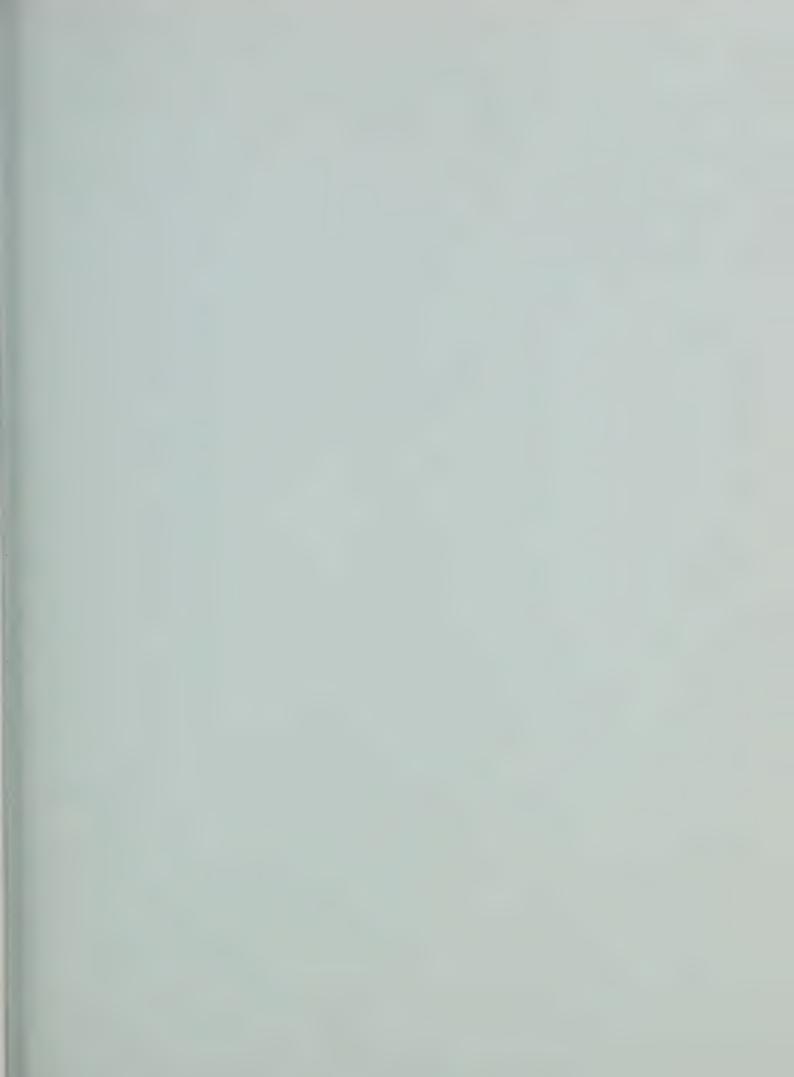
Total \$305,000

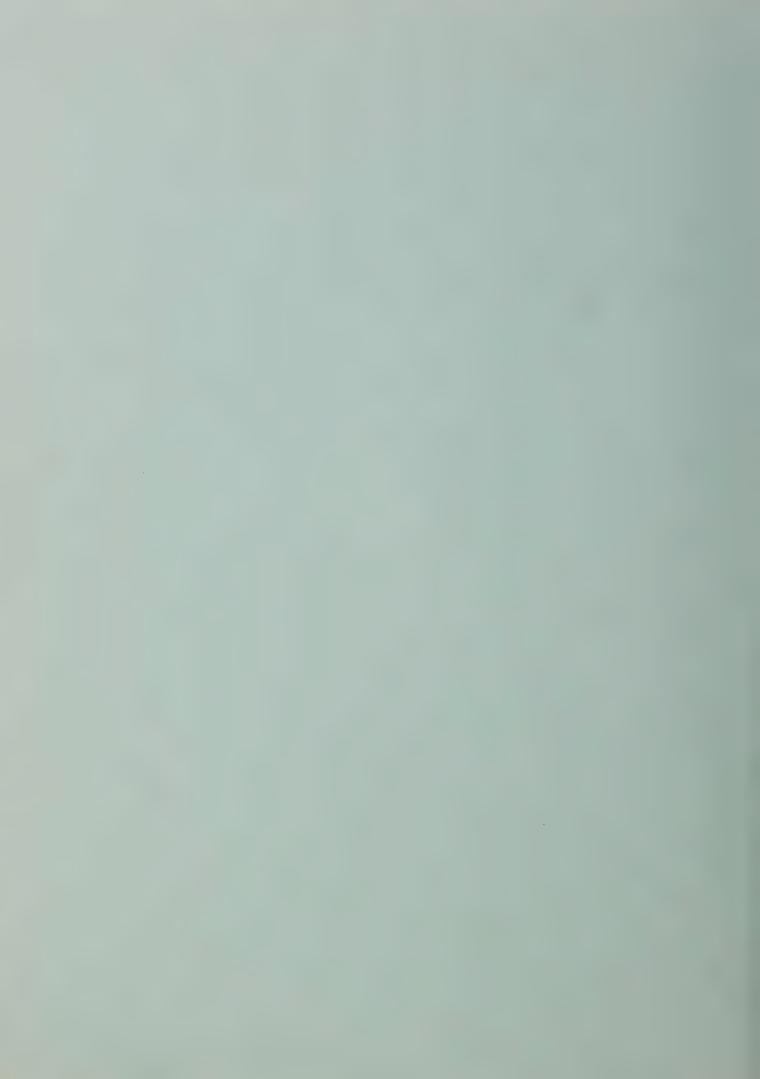
6 TOURN 6 TOURN 6 TOURN 6 TO THE TOURN 6 TO THE TOURN 6 TO THE TOURN THE TOU

GRANTS ARABORD FUR FIREDA FRAR

i. We i voice atoms

Clerier ....
Charmeler: Atles at
Ovine Terula-Wite
Granth Former









aSF83 .U6C76 1990 v.2

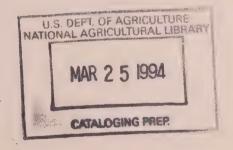


95-13 . U6291 1990 V. 2

# of Research Activities to Livestock Industries

# **Swine**

1982 - 1990





Participant to A.S.

 - C - C

#### CSRS

Swine Disease Research Funding

1982 - 1990

Special Grants

Competitive Grants

Hatch Formula

1433 Formula

Reprintive Diseases   42   6   14x   55,834.430   5,93,964   Beef 5494,042   Reproductive Diseases   38   8   21x   54,933,150   \$1,105,878   Bairy \$299,922   Bairy \$239,179	Area	Number of Proposals	Proposals Funded	Success	Amount Requested	Amount Granted	Commodity
42         6         142         \$5,834,430         \$793,964         Beef           36         8         212         \$4,933,150         \$1,105,878         Dairy           26         3         122         \$3,275,132         \$344,670         Beef           16         0         0%         \$2,399,048         0         Beef           18         3         172         \$2,485,014         \$343,987         Beef           17         2         122         \$2,485,014         \$343,987         Beef           14         4         2         2         \$2,485,014         \$343,987         Beef           14         4         4         5         \$2,485,014         \$343,987         Beef           14         4         4         5         \$2,485,014         \$343,987         Beef           14         4         6         6         \$31,693,075         \$443,114         \$40,114           4         9         0         8         \$450,793         \$439,356         \$433,114           4         9         0         8         \$450,793         \$439,356         \$439,356         \$450,793           5         0	AND DAIRY						
38         8         21x         \$4,933,150         \$1,105,878         Dairy           26         3         12x         \$3,275,132         \$344,670         Beef           16         0         0%         \$2,399,048         0         Baef           18         3         17x         \$2,485,014         \$343,987         Beef           17         2         12x         \$2,088,460         \$247,086         Beef           17         2         12x         \$2,088,460         \$247,086         Beef           17         2         12x         \$26,791         \$443,114         \$26,71,980           18         4         5         \$26,791         \$243,314         \$227,993         \$243,314           18         5         5         \$439,386         \$343,314         \$227,895         \$227,895           19         0         0         0         0         \$244,710	Reproductive Diseases	42	9	14%	\$5,834.430	\$793,964	
26 3 12% \$3,275,132 \$344,670 Beef Dairy 18	Respiratory Diseases	38	œ	21%	\$4,933,150	,105	\$299,
26       3       12%       \$3,275,132       \$344,670       Beef Bairy         16       0       0%       \$2,399,048       0       Beef Bairy         18       3       17%       \$2,485,014       \$343,987       Beef Bairy         17       2       12%       \$2,088,460       \$247,086       Beef Bairy         14       4       6       \$26,099,205       \$4,343,114       \$5,099,205       \$4,433,114       \$5,099,205       \$4,433,114       \$5,099,205       \$4,433,114       \$5,099,205       \$4,433,114       \$5,099,205       \$4,433,114       \$5,099,205       \$4,433,114       \$5,099,205       \$4,433,114       \$5,099,205       \$4,433,114       \$5,099,205       \$5,443,114       \$5,099,205       \$5,443,114       \$5,099,205       \$5,009,205							\$812 \$293
16     0     0%     \$2,399,048     0     Beef     \$343,987     Beef     \$343,987       18     3     17%     \$2,485,014     \$343,987     Beef     \$343,987       17     2     12%     \$2,088,460     \$247,086     Beef     \$2407,186       14     4     28%     \$1,600,145     \$421,980       14     4     28%     \$1,099,205     \$443,114       4     0     0%     \$ 439,356     \$431,114       5     0     0%     \$ 439,356     \$420,006       16     0     0%     \$ 744,710     0       17     \$1,988,061     \$396,895       5     0     0%     \$ 744,710     0       6     0     0%     \$ 744,710     0       12     3     25%     \$1,615,446     \$2267,004     total \$267,0       19     2     11%     \$2,053,444     \$160,202     total \$160,20       19     4     21%     \$2,572,392     \$480,607     total \$106,4       19     4     21%     \$27,526,642     \$2480,607     total \$2166,607       19     4     21%     \$27,526,642     \$2480,607     total \$2166,607       19     4     21%     \$27,526,5	Enteric Diseases	26	3	12%	\$3,275,132	\$344,670	
18       3       17%       \$2,485,014       \$343,987       Beef Dairy Bairy       \$343,987       Beef Sada         17       2       12%       \$2,088,460       \$247,086       Beef Dairy       \$247,0         12       3       25%       \$1,600,145       \$42,1980       \$2,835,0         14       4       0       0       \$5,835,00       \$5,443,114       \$2,835,0         18       3       17%       \$1,988,061       \$396,895       \$2,433,114         16       0       0       \$5,433,136       \$0       \$1041,865,0         18       3       17%       \$1,988,061       \$396,895       \$2,433,114         5       0       0       \$744,710       0       total       \$265,00         12       3       2.5%       \$1,615,446       \$2.67,004       total       \$267,67         19       2       11%       \$2,053,444       \$160,202       total       \$106,802         6       2       33x       \$5,142,225       \$2480,607       total       \$106,106         19       4       21%       \$22,572,392       \$480,607       total       \$106,106         15x       33x       \$537,526,642		16	0	%0	\$2,399,048	0	
17 2 122 \$2,088,460 \$247,086 Beef \$247,0 12 3 252 \$1,600,145 \$421,980 14 4 0 0 82 \$1,600,145 \$421,980 18 \$ 526,791 \$ 0 0 82 \$1,099,205 \$207,080 18 3 172 \$1,988,061 \$396,895 18 \$ 744,710 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		18	8	17%	\$2,485,014	\$343,987	\$343
12	Mastitis	17	2	12%	\$2,088,460	\$247,086	\$247,
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SWINE					•	e \$2,835,
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Enteric Diseases Respiratory Diseases Reproductive Diseases		m40	25% 0%%	\$1,600,145 \$1,829,076 \$1,099,205	-îm̂	
ses 18 3 17 $\mathbf{z}$ \$1,988,061 \$396,895 eases 11 2 2 18 $\mathbf{z}$ \$1,528 017 \$227,895	Metabolic & Musculo- Skeletal Diseases Parasitic Diseases		00	> <b>%</b>	\$ 526,791 \$ 439,356		total \$865,094
ses       18       3       17%       \$1,988,061       \$396,895         eases       1½       2       18%       \$1,528,017       \$227,895         5       0       0%       \$744,710       0       tota         12       3       25%       \$1,615,446       \$267,004       tota         19       2       11%       \$2,053,444       \$160,202       tota         6       2       33%       \$514,225       \$106,802       tota         19       4       21%       \$2,572,392       \$480,607       tota         293       45       15%       \$37,526,642       tota	POULTRY						
eases $1\frac{1}{6}$ $\frac{2}{0}$ $1\frac{87}{0}$ $\frac{$1,528}{$998,557}$ $$227,895$ $0$ $0$ $0$ $0$ $0$ $0$ $0$ tota $12$ $3$ $25$ <b>z</b> $$1,615,446$ $2267,004$ tota $19$ $2$ $11$ <b>z</b> $$2,053,444$ $2160,202$ tota $19$ $4$ $21$ <b>z</b>	Respiratory Diseases	18	e	17%	\$1,988,061	\$396,895	
5 0 0 0% \$ 744,710 0 tota  12 3 25% \$1,615,446 \$267,004 tota  19 2 11% \$2,053,444 \$160,202 tota  6 2 33% \$ 514,225 \$106,802 tota  19 4 21% \$2,572,392 \$480,607 tota  293 45 15% \$37,526,642	Metabolic & Immunologic Diseases Enteric Diseases		0 0 5	18%	, 528 898	\$227,895	
& GOATS         12         3         25%         \$1,615,446         \$267,004         tota           ILTURE         6         2         11%         \$2,053,444         \$160,202         tota           ILTURE         6         2         33%         \$ 514,225         \$106,802         tota           IELLA         19         4         21%         \$2,572,392         \$480,607         tota           5         293         45         15%         \$37,526,642	Musculo-Skeletal- Diseases	ហ	0	%0	744,	0	
19     2     11%     \$2,053,444     \$160,202     tota       6     2     33%     \$ 514,225     \$106,802     tota       19     4     21%     \$2,572,392     \$480,607     tota       293     45     15%     \$37,526,642	48	12	£	25%	\$1,615,446	\$267,004	
6 2 33% \$ 514,225 \$106,802 tota. 19 4 21% \$2,572,392 \$480,607 tota.	HORSES	19	2	112	\$2,053,444		\$267,
19 4 21% \$2,572,392 \$480,607 total	AQUACULTURE	9	2	33%	514	\$106,802	
<u>293</u> <u>45</u> <u>15x</u> \$37,526,642	SALMONELLA	19	4	21%	,572	\$480,607	
	TOTALS	293	45	15%	37,526,		\$5,340,084

# (31 NON Animal Health Aquaculture received)

/ (E)											
, r., r., r., r., r., r., r., r., r., r.	1.40 nd		W 22 3					72 M1,55	\$20, 00 m	62 26	50,223,02
				d_0 0 ∾ d							
		n) tell		en Tidden	70 60 s	ture o	. ~		gar En		

# ANIMAL HEALTH AND AQUACULTURE RESEARCH SPECIAL RESEARCH GRANTS

#### Allocations of Funds by Panels Fiscal Year 1989

- 14	D. C. J. D. Core Coreals	1988 Allocation	1989 Allocation	1990 Allocation
Panel 1	Beef and Dairy Cattle Reproduction Diseases	879,185	791,266	793,964
Panel 2	Beef and Dairy Cattle Respiratory Diseases	1,235,788	1,112,209	1,105,878
Panel 3	Beef and Dairy Cattle Enteric Diseases Metabolic Diseases Mastitis Bovine Parasitic Disease SUB TOTAL	135,000 210,000 265,557 457,557 3,183,087	481,302 250,000 120,000 110,000 2,864,777	344,670 0 247,086 343,987 2,835,585
Panel 4	Swine Diseases Enteric Diseases Respiratory Diseases Reproductive Diseases Other Diseases SUB TOTAL	446,390 254,267 130,705 149,973 981,335	533,202 350,000 0 0 883,202	421,980 443,114 0 0 865,094
Panel 5	Poultry Diseases Respiratory Diseases Metabolic & Immune Disease Enteric Diseases Musculo-Skeletal Diseases SUB TOTAL	398,333 225,000 79,751 0 703,084	322,378 135,000 89,909 85,489 632,776	396,895 227,895 0 0 624,790
Panel 6	Aquaculture Aquaculture (Animal Health SUB TOTAL	) 108,167 108,167	108,167 108,167	106,802 106,802
Panel 7	Sheep, Goat and Horse Diseas Sheep and Goat Diseases Horse Diseases SUB TOTAL	es 270,417 162,250 432,667	270,417 162,250 432,667	267,004 160,202 427,206
Salmone	lla (Panels 1, 2, 3, 4, & 5) SUB TOTAL	0	486,751 486,751	980,607 480,607
	ANIMAL HEALTH TOTAL	5,408,340	5,408,340	5,340,084

# ANTOGRADA AS CARROLLEGO AND CLEARE ANTOGRADA

#### Allocations of Auda by anala Paseal Year 1967

	E-85 mel (2 000)	1985 allocation	
			leef and Caley Cattle
85 1 <b>6</b> 5 2			
R 163	as as,	1.233, 8	
		000, de 1	
\$40. W2			
812 824 3			
		56.88A	
(,			
			(1707) S. 2
E08, 970		pro m	
		688 602	
			teater if it brown it wastes
0			
51m 801	73.81		
\$03,600			
	110 417		
202 0.85			
	12" 000		
V69 063			

ANIMAL HEALTH SPECIAL RESEARCH GRANTS AWARDS Fiscal Years 1979-1990

Total Projects Funds		51 \$4,729,210	\$3,098,	\$1,389,	084,	///	9 \$ 792,973	18/,	611,	4 \$ 320,386	135 \$12,993,883
1990 Projects Funds		3 \$ 421,980	4 \$ 443,114	0	0	0	0	0	0	0	7 \$ 865,094
1989 Projects Funds		5 \$ 533,202	5 \$ 350,000	0	0	0	0	0	0	0	10 \$ 883,202
1988 Projects Funds		3 \$ 446,390	2 \$ 254,267	2 \$ 130,705	0	0	1 \$ 149,973	0	0	0	8 \$ 981,335
1979-1987 Projects Funds	•	40 \$3,327,638	19 \$2,051,572		8 \$1,084,709		8 \$ 643,000	2 \$ 187,980	8 \$ 611.963	4 \$ 320,386	110 \$10,264,252
Commodity and Disease	SWILVE	Enteric Diseases	Respiratory Diseases	Reproductive Diseases	Pseudorabies	MMA	Internal Parasites	External Parasites	Tovicosis	Skeletal Diseases	(Lameness) SUBTOTAL

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH - SWINE

### GRANTS AWARDED FOR FISCAL YEAR 1982

ORGANIZATION & Investigator	AMOUNT	TITLE
University of PA PA 8201547 W. LAWRENCE	\$39,638	Pseudorabies Virus: DNA Finger- printion and New Approaches to Analysis of Latent Infection
Cornell Univ. CO 8201361 J. TIMONEY	\$43,062	Genetic Basis of Edema Disease Toxin Production by E. coli from Outbreaks of Edema Disease in Swine
Purdue Univ. IN 8201211 R. WILLIAMS	\$50,000	Blood Sucking Arthropods as Vectors of <u>Eperythrozoon suis</u> in Swine
Univ. of Illinois IL 8201321 R. ALLHANDS	\$63,500	Utilization of New Procedures for the Diagnossis of Osteochondrosis in Swine
Univ. of Florida FL 8201321 J. WOODWARD	\$63,500	Pathogenesis of Osteochondrosis
MT State Univ. MT 8212596 D. WORLEY	\$73,000	Trichinella spiralis Infection in Wildlife and Its Relationship to Eradication of Trichinosis in Swine
Univ. of MN MN 8201228 G. WARD	\$78,738	Etiology of Swine Proliferative Enteritis
SD State Univ. SD 8201284 D. BENFIELD	\$80,000	Pathogenesis of Mixed Rotavirus  E. coli Infections in Gnoto- biotic Pigs
Univ. of Arizona AZ 8201602 L. JOENS	\$80,000	Pathogenesis of Swine Dysentery
Univ. of TN TN 8201472 D. BEMIS	\$85,895	Mechanisms of Bacterial Patho- genesis in Respiratory Diseases of Swine

# CPECARL RESEARCH CRARES TRAILERS PROTESIAN ARKAR ARKAR ARKARITE BASEACON - TELL'

#### ISPI ASIA TALAPE AM CEBARASA TIMAKO

the transfer of the control of the transfer of		
l semandabled Vicini DWA Fingern policition and Sam Approving on ang. cale EE Lette of Chartion		
cecessis are as in extremely a plant cecessis are as in extremely as in the cecessis and the cecessis are as in the cecessis are as in the cecessis and the cecessis are as in the cecessis and the cecessis are as in the ceces are as in the cecessis are as in the ceces are as in the ceces are as in the ceces are as in	3c). 75g	
Stone Substitute Arthropodo Ar Verti II. pari incessor N. 41	CAL CES	
Par Committee of the Promiser		
g. 2000 modition to the second of		
an. Ineini eifinten olione il Vientela ali la feloriore n fredinarion et richinara n felor		
Services of Swine Proliferal.		
Pathorenesis of Mines Recognists Intections in George		
Pachegement or Swine Processy		

Univ. of MO MO 8201497 B. N. DAY	\$94,155	Effects of Zearalenone on Estrus and Ovulation in Swine
Univ. of Mo MO 8201354 A. WHITE	\$100,000	Swine Colibacillosis: Pharma- cology for the Heat-Stable Toxin
NC State Univ. NC 8201376	\$120,907	Endocrine Mechanisms Involved in Prolonged Anestrus After Weaning in Sows
Iowa State Univ. IA 8201269 R. ROSS	\$146,811	Pathogenesis of Mycoplasmal Pneumonia of Swine
Univ. of NE NE 8201178 M. RHODES	\$67,900	Antigens of <u>Ascaris suum</u> which Stimulate Antibody Production in Swine
TOTAL	\$1,107,106	

Effects of Rosealerons on Estes and Ovulation in Buins	F.S.L. (PS)
Surve Collect t Locion Pharmer cology for the Rear-Shable lists	360, 254
	. 100,0018
'amacinaby#' in eldensgor'.s <sup>q</sup> wollad to allocus of	
Anthons of Applia arms whim. Settenton Antibor Tronuction	

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH - SWINE

#### GRANTS AWARDED FOR FISCAL YEAR 1983

ORGANIZATION & Investigator &	AMOUNT	TITLE
University of Florida A. M. MERRITT	\$21,367	Piglet jejunal EMG respones to E. coli enterotoxin
University of Penn. G. A. SCHAD	\$30,000	Trichinosis: Relative import- ance of swine and rats in
NC State Univ. W. L. MILLER	\$36,510	Porcine ovarian inhibin and its relationship to swine anestrus
VA P. Institute H. P. VEIT	\$49,920	Factors affecting the pathogen- icity of <u>Bordetella</u> bronchiseptica in the neonatal pig
St. Louis Univ. R. N. GREENBERG	\$50,000	Mode of action and pharma- cologic blockage of <u>E. coli</u>
IA State Univ. J. A. JARVINEN	\$50,000	Preparturient immunization of neonatal coccidiosis
Univ. of Illinois W. C. WAGNER	\$67,631	MMA in the sow. What regulates prolactin secretion?
IA State Univ. K. B. PLATT	\$78,778	Evaluation and refinement of 2 antigen delivery systems for pseudorabies subunit vaccines
MI State Univ.	\$78,779	Immunochemical methods for the diagnosis and prevention of swine mycotoxicosis
IA State Univ. W. H. HSU	\$86,452	Reducing pig losses due to MMA by promoting prolactin secretion with an anti-dopaminergic drug
Ohio State Univ. L. J. STAIF	\$96,602	Characterization and propagation on new enteric viral pathogens

# APPORAL RESTABLISHED FRANK FOR STANKE SWEDE

#### PSEI ANNY W PER SU DRIGGE BY STRAND

#### WWA.

71g 71g		
r total by the second to which		
alo to space . 1000		
TOTAL WAR SOUTH ALL TO THE TOTAL TOT		
TENT OF STATE OF STATES	000,000	
Propaggiors industry 108 0.	400,088	

transfer to see the second

Francisco provides and the second of the sec

Editoria Total and an england of the Attack and the conference of the conference of

Afor our ment process of an article to be sented to the sented to the sented to the decomposition of the sented to the sented to

ACCOMPANY FOR TOLING PROGRESS

WA State Univ. K. W. KELLEY	\$100,000	Application of monoclonal anti- bodytechnology to study immunityto enterotoxingentic E. coli
Univ. of CA H. J. OLANDER	\$118,496	Endotoxin in the pathogenesis and prophylazis of haemophilus pleuropneumoniae in swine
Univ. of MN HAN S. JOO	\$126,684	Molecular pathogenic and immunologic characteristics of porcine parvovirus
Univ. of MO D. G. THAWLEY	\$129,720	Pseudorabiers virus latency: Investigations by DNA hybridization, fingerprinting and issue cultivation
Texas A&M P. H. DEFOOR	\$149,553	Porcine bordetellosis: Acquired immunity to putative antigens
TOTAL	\$1,270,492	

- 탈토B

T.

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH - SWINE

## GRANTS AWARDED FOR FISCAL YEAR 1984

ORGANIZATION & Investigator	AMOUNT	TITLE
Iowa State University of Science & Tech. Ames, Iowa 50011 GARY OSWIELLER	\$43,615	Relationship of Mycotoxins to Swine Reproductive Failure
Iowa State University of Science & Tech. Ames, Iowa HENRY STAHR	\$47,869	Detoxification of Tri- chothecene Mycotoxins for Swine
Cornell University Ithaca, New York 14853 JOHN TIMONEY	\$48,203	Cloning the Gene for the Toxin of Edema Disease of Swine
NC Agric. Res. Service North Carolina State Univ. Raleigh, North Carolina 27695 G. DAIL	\$50,658	Seasonal Postweaning Anestrus: Hypothalamic and Pituitary Function of the Anestrous Sow
Purdue Research Fdn. West Lafayette, Indiana 47907 CHARLES CHRISMAN	\$53,000	Cytogenetic Consequences of Heat Stress in Male Swine
Texas A&M Res. Fdn. College Station, Texas 77843 TIMOTHY PHILLIPS	\$94,482	Mechanistic Studies of Ochratoxin A and Citrinin Induced Nephropathy in Swine
University of Georgia Res. Fdn. Athens, Georgia 30602 S. KADIS	\$94,911	Pathogenesis of Porcine <u>Hemophilus</u> Pleuropneumonia
Washington State Univ. Pullman, Washington 99164 W. DAVIS	\$98,851	Production of Protective Monoclonal Antibodies in Pigs by Transfection with DNA

#### BOROLL REPLACE ERANGS FREEZHELD PRACEAM ARRA ARRANERALDS 1255ARCH - BRITT

#### CRANTS ASSESS FOR A LIGHAL FRANK 1714

enu Lies Bytsphreime res enu Lies Bytsphreimer enu Lies Bytsphreimer	er Ele,		
emantiscential de		287 2012 - 287 2013	
n Hel . Tel arro or peine		2587. 695	Hadverell er York
essent restaurant Anotrona yearheless and Parulters untited of the Arestons For		rate Units.	
ear Stress to Male Sulno			
e chemistr. Strict to 57  Let general A and Citainin  nduced de this oversy in Suita		898 Terre	

erijaneseski Çe Anıl boddan er

University of Wisconsin Madison, Wisconsin 53706 RONALD SCHULTZ	\$99,148	Effects of feeding Aflatoxins to Sows on Disease Susceptibility in Young Pigs
Virginia Polytechnic Inst. & Sate Univ. Blacksburg, VA 24061 CRAIG HAMMERBERG	\$101,439	Biological Enhancement of Resistance to Enteric and Respiratory Diseases in Piglets
University of Minnesota St. Paul, Minnesota 55104 C. PIGOAN	\$120,000	Pasteurella multocida Exotoxin: Characterization and Role in Swine Pneumonia
University of Iowa Iowa City, Iowa 52242 JOHN BUTLER	\$128,419	Studies on Selected Swine Immunoglobulin Isotypes, Subisotypes, and Idiotypes
University of Arizona Tucson, Arizona 85721 LYNN JOENS	\$139,728	Development of Immunity to Swine Dysentery in Pigs
University of Minnesota St. Paul, Minnesota 55104 ALLEN LEMAN	\$145,077	Disease and Management Factors Associated with Litter Size and Sow Culling
TOTAL	\$1,265,400	

TOWER THE ADMINISTRATE OF STREET OF

265, aCC

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH - SWINE

### GRANTS AWARDED FOR FISCAL YEAR 1985

ORGANIZATION & Investigator	AMOUNT	TITLE
Medical University of South Carolina 171 Ashley Ave. Charleston, SC 29425 ERIC R. JAMES	\$29,511	Cryopreservation of Trichinella
Iowa State Univ. of Science and Techonlogy Ames, IA 50011 HENRY M. STAHR	\$58,006	Detoxification of Trichothecene Mycotoxins for Swine
Iowa State Univ. of Science & Technology Ames, IA 50011 M. J. WANNEMUEHLER	\$62,899	Biologic Significance of Endotoxin to the Pathogenesis of Swine Dysentery
South Dakota State University Brookings, SD 57007 DAVID A. BENFIELD	\$68,007	Role of Cellular Receptors in the Pathogenesis of Porcine Enteric Viral Infections
Virginia Polytechnic Inst. & State Univ. Blacksburg, VA 24061 CRAIG HAMMERBERG	\$78,489	Immunomodulating Factor Produced by a Porcine Lymphoblastoid Cell Line
Ohio State University Columbus, OH 43212 K. W. THEIL	\$90,550	Improved Methods for Detecting Porcine Rotavirus-like Virus
Washington State Univ. Pullman, WA 99164 JAMES A. MAGNUSON	\$93,640	Development of a Vaccine to Escherichia coli Heat-stable
University of Minnesota St. Paul, MN 55104 H. S. J00	\$118,650	Seroepidemiology and Control of Pseudorabies in Swine
University of Minnesota St. Paul, MN 55104 T. W. MOLITOR	\$131,389	Porcine Parvovirus Pathogenicity, and Persistence in Swine

# PREPARAN AREA NOT A SECULAR DE SE

#### CROSS LANGUE UNT ALTERNAL POSSESSION

er eredelt i recherch		
en e	\$00,887	
or processor to the tack to at . ?  or an area or a continuation or a continuation of the continuation of		
teneral in process we continue to the second		, ptnv [
representation of a second contracted a		

Pennsylvania State University University Park, PA 16802 F. G. FERGUSON	\$148,421	Piglet Respiratory and Enteric Cellular Immune Responses to Pseudorables Virus
Michigan State Univ. East Lansing, MI 48824 MARTHA H. MULKS	\$148,966	Immunobiology and Pathogenesis of <u>Hemophilus</u> pleuropneumoniae Infection in Swine
Agric. Expt. Station University of Tennessee Knoxville, TN 37901 DAVID A. BRIAN	\$150,000	Development of Potential Enteric Coronavirus Vaccine Recombinant DNA
TOTAL	\$1,178,528	

tag nets

Figina Rospisarang om Carlolfo Lopeson Kert Panda sahiba urnun

Selekt 1

8148 965

ers ស្ដី។ ន ខាត់ ទីst of benon Hiller ន្នំ ព្រះ នេះ Tobecchou

000 0212

Novelopsem) of Potenti tries - Cocomentury Pacedonical Contention

and the state of the state of the state of

#### SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH - SWINE

GRANTS AWARDED FOR FISCAL YEAR 1986

GRANTS ORGANIZATION & Investigator & Number	AWARDED FOR FISCAL AMOUNT	YEAR 1986 TITLE
Ohio State University Res. Fdn. Columbus, OH 43212 KENNETH W. THEIL 86-CRSR-2-2892 8601894	\$44,650	Genomic Probes to Detect and Differentiate Rotavirus Serogroups Infecting Swine
Agricultural Expt. Stn. South Dakota State Univ. Brookings, SD 57007 DAVID H. FRANCIS 86-CRSR-2-2898 8602039	\$72,243	Modified Live <u>Escherichia coli</u> Vaccine for Colibacillosis of Pigs
University of Minnesota St. Paul, MN 55104 G. E. WARD 86-CRSR-2-2893 8602109	\$77,434	Study of Pathogenesis Prolifertive Enteritis using DNA Probes
University of Wisconsin Madison, WI 53706 RONALD D. SCHULTZ 86-CRSR-2-2905 8601934	\$91,600	Immunosuppression Associated with Vitamin E-Selenium Deficiency in Swine
Ohio State University Columbus, OH 43212 LINDA J. SAIF 86-CRSR-2-2910 8602163	\$120,694	Serotyping of Porcine Rotaviruses using Monoclonal Antibodies
University of Wisconsin Madison, WI 53706 L. R. BACKSTROM	\$124,392	Swine Atrophic Rhinitis: Immunochemical Probes for P. multocida Antigen and Toxin
Iowa State University of Science & Technology Ames, IA 50011 RICHARD F. ROSS	\$146,025	Immunogenic and Virulence Factors of Mycoplas Pneumonia of Swine

86-CRSR-2-2897 8601920

THE MARRES SATIONS OF STREET

PRINCE ANALOG PRINCES

a now

PEWE SO THE MY SK

n (15)

- f ·

no al teans forms thats

A Secondary See H. Association and Association

Receiping of Porting

ເຮັດເປີ່ງໄດ້ ຄະໜີແລະຄຸດ paymen ປັ່ນໝີ ຂອບຄາຊີ Learneatheachaing P - , & 3 8

13. 2 State Joay. 30 57007

210 - 1

177 a 177689623 577 B

SULULIZ

o Weignereley \$120.0

University of Minnesota St. Paul, MN 55104 DAVID G. THAWLEY 86-CRSR-2-2929 8601938	\$149,464	Molecular and Epidemiological Aspects of Pseudorabies Virus Latency in Swine
Oregon State University Corvallis, OR 97331 BRADFORD B. SMITH 86-CRSR-2-2919 6801929	\$150,000	Mastitis-Metritis-Agalactia Syndrome: The Role of Endotoxins in Pigs
	207/ 500	
TOTAL	\$976,502	

my needs as a paleon of a constant of the cons

408 8 30 A

ofceneral :

00 000

AND THE EXECUTES OF THE

W. 5000

ent Masterly

#### ANIMAL HEALTH SPECIAL RESEARCH GRANT AWARDS FUNDED FOR FISCAL YEAR 1987

Institution	Title and Principal Investigator	Amount	
Swine Enteric Diseases			
U. of MO	Infectious Disease Resistance in Transgenic Pigs: A Pilot Project. C. A. PINKERT	\$137,954	
S. DA State U.	Role of Cellular Receptors in the Pathogenesis of Rotavirus and Transmissible Gastroenteritis. D. A. BENFIELD	<b>\$71,9</b> 75	
U. of Arizona	Porcine Proliferative Enteritis: A Synergistic Disease. L. A. JOENS	\$145,374	
Iowa St. U.	Characterization of Immunogens in Transmissible Gastroenteritis Virus of Swine. P. S. PAUL	\$103,869	
Swine Respiratory Diseases			
Kansas St. U.	Development of a Subunit Vaccine for Haemophilus pleuropneumoniae  B. W. FENWICK	\$127,818	
U. of Ill	Porcine Proliferative Enteritis: A Synergistic Disease. J. A. SHADDUCK	\$148,034	
Swine Reproductive Diseases			
Iowa St. U.	Pseudorabies Detections in Vaccinated Pigs by Anti-idiotypic Monoclonal Anti- body. K. B. PLATT	\$96,457	
Purdue U.	Development of DNA Probe for Diagnosis of Leptospiral Infection. J. M. NEILSON	\$149,854	

# ANTHAL INACTE STEPLAR STEPASC TARRES ANALYS STEPS STANKED FOR STRUCK NAME 1977

2 3 3 3 7 7 7	Itale and Princips Investigated	
371.275	Role EV nellitat Neuwrlansian the Pathonomesis of Moto its and Transmissible Gastrooster tis. D. A. LWITELL	
466 8468	Porcine Proliferative Releasing A Synorgiante Disease	
613,77.613	rol school standal r Vi school Lyrad	
, , ¢8(8		

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA - ANIMAL HEALTH RESEARCH - SWINE PROPOSALS RECOMMENDED FOR FUNDING - FISCAL YEAR 1988

Swine Enteric Diseases		
PURDUE-IN	Gastrointestinal Cytoprotection by Lactogenic Epidermal Growth Factor CARLTON LAMAR	\$148,604
IA ST UN	Swine Dysentery: Biologic Effects of Endotoxin, T-Cells and Mast Cells MICHAEL WANNEMUEHLER	\$149,893
NC ST UN	Porcine Monoclonal Anti-TGEV and Anti-idiotype Antibodies EDWARD DEBUYSSCHER	\$147,893
Swine Respiratory Diseases		
UN of MN	Specificity of the Cellular Immune Response to Pseudorabies Virus Protein THOMAS MOLITOR	\$148,803
VPI and ST UN	Attenuated Mutants of Haemophilus pleuropneumoniae for Use in Live Vaccine THOMAS INZANA	\$105,464
Swine Reproductive Diseases	3	
UN of MN	Encephalomyocarditis Virus In Swine: Viral Characteristics, Pathogenesis and Immunity HAN J00	\$ 55,705
PURDUE - IN	Role of Spiroplasma in Abortion and Neonatal Death in Swine JUDITH NIELSON	\$ 75,000
Swine Parasitic Diseases		
PURDUE - IN	Characterization and Molecular Cloning of <u>Ascaris</u> <u>suum</u> Larval E S Proteins	\$149,973

Total \$981,335

# ACTIONS IN ACTION OF BELLEVIEW OF THE STREET OF THE STREET

41 6 3 5 6 18	Crebtonia estinol Are. A carrais by Lecterenic Kriderosi ouch Festor CARLICT Lands	
108 841x		
[ \$, {&±8		
198, M = E		
	Accounted Michigans of Telegraphs 12 For The In the Value of The Thomas In the Control of The Co	
f (5% , 8 m - 2		
	Roie of Spicaplones is Aborrism and Macmatal Joseph 10 Baros Judite Wikismu	

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA - ANIMAL HEALTH RESEARCH - SWINE PROPOSALS RECOMMENDED FOR FUNDING - FISCAL YEAR 1989

Institution	Title and Principal Investigator	Amount
Swine Enteric Disease	<u>s</u>	
UN of MN	The Intracellular Organism in Swine Proliferative Enteritis CONNIE J. GEBHART	\$ 88,808
PENN ST UN	Piglet Enteric Cellular Immune Responses to Salmonella Enteritidis FREDERICK G. FERGUSON	\$101,000
SD ST UN	Selection of Hereditary Disease Resistance by Analysis of Cellular Receptors DAVID H. FRANCIS	\$149,406
IA ST UN	Molecular Probes for Studies on Epidemiology of Porcine Rotavirus Infections PREM SAGAR PAUL	\$ 98,585
OH ST UN	Serotypic Characterization of Porcine Rotaviruses Using Genes 4 and 9 cDNA Probes LINDA J. SAIF	\$ 95,403
. Swine Respiratory Di	seases	
UN of IL	Assessing Pig Welfare: Ethology, Immunology, and Physiology STANLEY E. CURTIS	\$ 50,000
STANFORD UN	Construction of a live vaccine for the prevention of porcine pleuropneumonia PETER DONALD O'HANLEY	\$150,000
UN of MN	Swine Herds Having a Low Prevalence of Adults Sero-positive for Pseudorabies Virus ROBERT BARCLAY MORRISON	\$ 50,000
UN of NE	An Accurate Determination of the Pseudorabies Infection Status of Swine Herds with Single Reactors FERNANDO A. OSORIO	\$ 50,000
MI ST UN	Polymerase Chain Reaction Based Detection of Pseudorabies Virus ROGER K. MAES	\$ 50,000
	Total	\$883,202

#### MAGIONA PAUDE NICERARA MALANA L. - MALAR INSTITUTANTO LA CARACTERA FEND NAS LAGO IN - AND THE RESPONDENTED IN A PROPERTIES

	the store in Englished by a street	
e		
	or our v facereal (47)	
	enor no assent aleis	
	Magazaged to Relation to the Site of	
pra Dara	Setton on the district was	
	Randonere ng Angirata	
625.78 S	Nolocul r Probed 2 w3.23 . c	
	Fatter touche of 21	
6.88 E	ecis i a respensa	
050.08 #	Assessing Fig. Relieves Zensessen	
227 2818		
001.0x	Subsections of a Law Container	

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA - ANIMAL HEALTH RESEARCH - SWINE PROPOSALS RECOMMENDED FOR FUNDING - FISCAL YEAR 1990

Institution	Title and Principal Investigator	Amount
Swine Enteric Diseases		
Michigan State University	PCR Based Detection and Quantitation of Pseudorabies Virus Latency ROGER MAES	\$149,720
Ohio State University	Nucleic Acid Probes for the of Transmissible Gastroenteritis Virus DARAL JACKWOOD	\$122,382
University of Illinois	Isolation and Characterization of the Enterocyte Receptor for Porcine Rotavirus HOWARD GELBERG	\$149,878
Swine Respiratory Diseases		
Iowa State University	Chemical and Toxicological Characterization of Fumonisin Mycotoxins in Swine GARY OSWEILER	\$ 92,174
Kansas State University	Identification of Infection Dependent Antigens of Actinobacillus pleuropneumoniae BRADLEY FENWICK	\$118,393
Purdue	Host-agent Interactions of Mycoplasmal Pneumonia of Swine L. KIRK CLARK	\$118,793
University of Minnesota	Epizootology and Potential Economic Impact of Influenza A Infections in Swine RUSSELL BEY	\$113,754
	TOTAL	\$685,094
g to galmanalla		
Swine - Salmonella	The Perfused Swine Liver Model for	\$138,535
Iowa State University	The Perfused Swine Liver model for Salmonella Invasion and Immunity THEODORE KRAMER	Q130,333
	TOTAL	\$138,535

## THE ALL STREET TO STREET AND A STREET AND A

,		
t one - Fs		
	. ~ *** *** *** *** *** *** *** *** ***	
5.24,	The lette Albert Processor of the Control of the Co	
R. Car E	est refresse () env. ma: Lest ( ) estern () env. ma: Lest ( ) env. ma: lest ( ) env. ma: lest	
		ancorate us
Fig. C	Charles of the desire of the d	
(90 grst	Identifi rim Toñosina Dependant invigant ut acitosoni plettoputanolog Etcasi. 7 par	vilzavial es.
	No. 1-Agent Edicesoftons of Mycoplaim, Premionia of Saine (1. 1451188	
NET FILE	Egiropeol end Possendel Remandic Tagaet of sullments a Enfertions n Syana bay	

CSRS

Animal Health Research - Special Grants

#### SWINE

Year	Number of Projects	Dollars
1982	15	\$1,107,106
1983	16	\$1,270,492
1984	14	\$1,265,400
1985	12	\$1,178,528
1986	9	\$ 976,502
1987	8	\$ 981,335
1988	8	\$ 981,335
1989	10	\$ 883,202
1990	7	\$ 685,094
	Swine Salmonella	
1990	1	\$ 138,535

#### 8 123

### factor to the forest of state fortal

#### OM DRO

profice!

871, 187, 173

\$54.075.12

BE , PAS . 18

8.8 975

F16,3"P 6

FEF 120 3

Per : : : 2

100,080 3

100 100 2

ACH ROLL

## COMPETITIVE RESEARCH GRANTS PROGRAM PROGRAM AREA: BIOTECHNOLOGY - ANIMAL DISEASES

### GRANTS AWARDED FOR FISCAL YEAR 1985

ORGANIZATION & Investigator	AMOUNT	TITLE
Agricultural Research Service, USDA P.O. BOX 70, RR #2 Ames, IA 50010 HARLEY W. MOON	\$79,000	Genetically Engineered Live Oral Pilus Vaccine for Postweaning E. coil Infection of Swine
Pennsylvania State University University Park, PA 16802 TERRY D. ETHERTON	\$100,000	Regulation of Nutrient Utilization in Pigs by Porcine Growth Hormone
Pennsylvania State University University Park, PA 16802 FREDERICK FERGUSON	\$100,000	Swine Natural Killer Cells: Cloning and Production of Monoclonal Antibodies
Tufts University Boston, MA 02111 V. Papaioannou	\$122,000	Development and Viability of Micromanipulated Preimplantation Pig Embryos
Children's Orthopedic Hospital & Medical Center 4800 Sand Point Way, NE Seattle, WA 98105 STEPHEN MOSELEY	\$134,500	Genetic Organization and Function in the Production of the F4l Bacterial Adhesin
Iowa State University of Science & Tech. Ames, IA 50011 C. M. WARNER	\$143,400	Role of the SLA Complex in Pig Development and Reproduction
Ohio University Athens, OH 45701 T. E. WAGNER	\$150,000	Mammary Specific, Germline, Genetic Delivery of a Lactogenic Growth Hormone
North Carolina State University Raleigh, NC 27695 RUTH M. SHUMAN	\$150,000	Gene Transfer and Tissue- specific Expression of Genes in Domestic Animals
TOTAL	\$978,900	

red to the state of the

e ILSI i a tem alpare Colored en ano a decimental anterior

B. . . the HA Lopeta la Pal

Magazar Delivery office inc

cenes to make .n. a literate of

inleeratty Hark, PA

mia Unterelty Perk, 39

El ole

Örtèngadis Rodic i Contes Roy, Ng

200.0248.

000, 35...

## COMPETITIVE RESEARCH GRANTS PROGRAM PROGRAM AREA: BIOTECHNOLOGY - ANIMAL DISEASES

#### GRANTS AWARDED FOR FISCAL YEAR 1986

ORGANIZATION & Investigator & Number	AMOUNT	TITLE
University of Connecticut Storrs, CT 06268 TSU-JU T. YANG 86-CRCR-1-2190 8601260	\$60,000	Myeloma Cell Lines for Bovine and Porcine Monoclonal Antibody Production
Michigan State University East Lansing, MI 48824 WEBER G, BERGEN 86-CRCR-1-1958 8600240	\$87,000	Role of Androgens on Transcription in Skeletal Muscle of Pigs
Ohio State University Res. Fdn. Columbus, OH 43212 LINDA STAIF 86-CRCR-1-2219 8601349	\$100,000	Use of cDNA Probes for the Detection of Transmissible Gastroenteritis Virus
Washington State University Pullman, WA 99164-5045 THOMAS J. INZANA 86-CRCR-1-2193 8601283	\$115,000	Monoclonal Antibodies for use in The Treatment and Diagnosis of Endotoxemia
Tufts University Boston, MA 02111 ERIC W. OVERSTROM 86-CRCR-1-2059 8600271	\$115,100	Cellular Differentiation during Development of the Porcine Blastocyst
University of Illinois Urbana, IL 61801 KEITH W. KELLEY 86-CRCR-1-2003 8600212	\$200,000	Endocrine Regulation of the Immune System
TOTAL	\$677,100	

#### CRANTS ARABIACO FÜR CISCAL VIAR ETTARE

1076 001 september of an experimental constraints of the september of the		5 21
Myelong LLL Uthes Ste Auries and Pares War elosal A trooper Promo Lan		
to outperford to a.ch forefire of a jacknessi nuscie of preserved	000 (83	Store sing, HI 68824 GET 1884
er ind semina arung for ent vetesper is Trans. eriute Guerres duettetu Vitua		701voro10v 0 43212
Monorland har Beersq for a e in The Trustment and Biognouss of Endotoxeeds	000,6118	

reterised estil siletian 201 in daminister selvet 584500 sil a lavo

#### ACTIVE GRANTS

PROGRAM AREA: SWINE DISEASE RESEARCH
PSEUDORABIES
CSRS

ORGANIZATION & Investigator	AMOUNT	TITLE & Beginning date
University of PA PA 8201547 W. LAWRENCE	\$39,638	Pseudorabies Virus: DNA Finger- printing and New Approaches to Analysis of Latent Infection 1982.
IA State Univ. K. B. PLATT	\$78 <b>,</b> 778	Evaluation and refinement of 2 antigen delivery systems for pseudorabies subunit vaccines 1883.
University of MO D. G. THAWLEY	\$129,720	Pseudorabies virus latency: Investigations by DNA hybridization, fingerprinting and tissue cultivation 1983.
Univ. of Minnesota St. Paul, MN 55104 H. S. JOO	\$118,650	Seroepidemiology and Control of Pseudorabies in Swine 1985.
Penn. State Univ. Univ. Park, PA 16802 F. G. FERGUSON	\$148,421	Piglet Respiratory and Enteric Cellular Immune Responses to Pseudorabies Virus 1985.
Univ. of Minnesota St. Paul, MN 55104 DAVID G. THAWLEY	\$149,464	Molecular and Epidemiological Aspects of Pseudorabies Virus Latency in Swine 1986.
TOTAL	\$664,671	

#### ACTIVE ENERGY

## TO SAN TO THE WAS A LAKE MANAGERS AND CARROLLES

:10000

2 6.00

1) 17 (20 (20 ) 17 (20 ) 17 (20 ) 2 (2

Me ergion est hallen.
Acpose II Page 1 :a. 1 - 2 iss. 2

1989 (82)

488 0388

# CSRS Formula Funds - Hatch, 1433 and State Funds Swine Disease Research - 1986

Pseudorabies

		Dollars
Institution	Title and Principal Investigator	
Illinois	Monocytic Macrophages in Age Dependent Resistance of Pigs to Pseudorabies Edwin Hahn	\$14,094 (Hatch)
Indiana	An Epidemiological Study of Pseudorabies Virus: Restriction Endonuclease Patterns of Isolates D. P. Gustofson	\$ 4,898 (1433)
Iowa	Relationship Between the SLA Gene Complex and Resistance to Pseudorabies M. F. Rothschild	\$ 7,976 (1433)
Iowa	Infectious Disease Sequelae to Pseudorabies in Swine G. W. Beran	\$22,749 (State)
Iowa	Anjeszky's Disease of Swine (Latent Infection) J. P. Kluge	\$87,755 (State)
Iowa	Evaluation and Refinement of Two Antigen Delivery Systems for Pseudorabies Subunit Vaccines K. B. Platt	\$26,880 (State)
Iowa	Optimization of Pseudorables Virus Subunit Diagnostic and Vaccine Antigen Production K. B. Platt	\$71,162 (State)
Iowa	Pseudorabies K. B. Platt	\$166,012 (State)
Michigan	Evaluation of an In Vivo Model to Study Latent Infections Caused by Pseudorabies Virus R. Maes	\$14,550 (State)
Minnesota	Seroepidemiology and Control of Pseurabies in Swine	\$ 9,614 (State)
Missouri	H. S. Joo  Pseudorabies Virus Latency	\$11,592 (1433)
Pennsylvani	D. G. Thawley  In Piglet Respiratory and Enteric Cellular Immune Responses to Pseudorabies Virus  F. G. Ferguson	\$51,920

83

Part west formation to like

Monacyti. Nagroniages in 82 Pependo of Pige to Pasuni Tebres Austo Hohn

An Feidemiologiasi Squdy Al Pon. Rentrietion Endonvolease Pac 2018 8. Feidestofson

Principle of the Partice of LA committee of the Committee

ins, eleur Beers: Sechalas in 2000-109 Sa r G. V. Veren

Antens a Distance of SW (Leters 18

Evolution and Relinsment of The Addisor To Symptoms is Pounderables Subundi Vicel -E. W. Tlatt

Opticated of Francische Viro Brown in the Marches Mariero Broductive R. 22 Francische R. 20 Franci

goes, lorables

elustice of an EQ Viv. Yelel on Pondiels and Pondiels and

Seen prisonless and control of Poetherles in

Pacasi --- i...

g Oggan (Stant)

31, 392 (1633)

026 115

# COMPETITIVE GRANTS PROGRAM AREA: SWINE GRANTS AWARDED FOR FISCAL YEAR 1987

ORGANIZATION & Investigator	AMOUNT	TITLE
Indiana Univ. Fdn. Bloomington, IN	\$182,000	Escherichia coli Enterotoxin STII
Univ. of MO Columbia	\$200,000	Immunologic and Molecular Genetic Determinants in Mycoplasmal Pneumonia of Swine
WISE  AES/Univ. of NE Lincoln	\$120,000	Molecular Characterization of Pseudorabies Virus (PRV) Latency-Related Genes
ROCK Univ. of MN St. Paul	\$120,000	Purification of a Porcine-Serum- Borne Inhibitor of Muscle Cell Proliferation
Ohio State Univ. Reso	, Fdn. \$120,000	Regulation of Porine Preadipocyte Growth and Use for Clone Production
RAMSAY Ohio State Univ. Res Columbus, OH	. Fdn. \$135,000	Porcine IgG Receptors in Developing and Lactating Mammary Gland
SIMMEN Univ. of Illinois Urbana, IL	\$150,000	Determination of the Effect of Relaxin on the Cervix in Pregnant Pigs
SHERWOOD TOTAL	\$919,000	

#### IfTE nime oneded ....

Parent schoolate has polariore? Ong,

Liver typy to a completely

where the liver have a

In the transfer of the state of

TANTED TO SELECT TO THE TOTAL OCO. SELECT STREET ST

Regulativa of Portine Providences, adm. Style of the Clark of the Colors of Control of C

Lu. Red. PSr. 5135,000 Pereios 193 Receptore in

\$150,000 per to relient to the Before 12 Precessor

### COMPETITIVE GRANTS - 1988

#### Swine

ORGANIZATION & Investigator	AMOUNT	TITLE
Henry M. Jackson Fdn for the Advancement of Military Medicine Bethesda, MD O'BRIEN	\$150,000	E. coli That Cause Edema Disease: Molecular Analysis of Virulence Mechanisms
University of Minnesota St. Paul, MN WONG	\$125,000	Cloning and Characterization of Ovine Insulin-Like Growth Factors

Pennsylvania State University University Park, PA ETHERTON \$200,000

Regulation of Pig IGF-I Binding Proteins mRNAs by pGH

Other Selfe sof o

R. pell T. at well. Signa Drzerku. Sakerwika Andrysko wi Vrowieno Unaher ike

E Minnesota Silb 000

Clent, an Charaly 1999. To of more terms. Teller

estand of the

Regulation of Dis Body-A.
Finding & needed of State

ly Park, 20

#### COMPETITIVE RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH SWINE

ORGANIZATION & Investigator

AMOUNT

TITLE

#### GRANTS AWARDED FOR FISCAL YEAR 1988

Pennsylvania State University \$200,000 T. D. Etherton

Regulation of Pig IGF-I Binding Protein mRNAs by

pgh

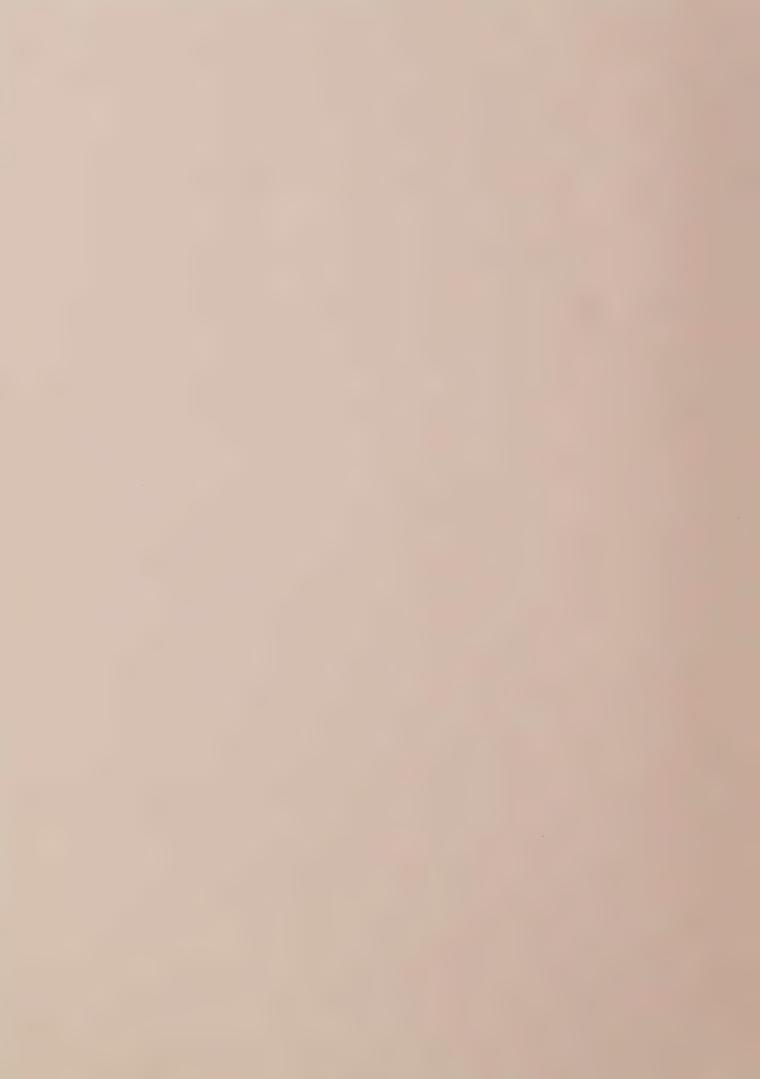
Henry M. Jackson Foundation for \$150,000 the Advancement of Military Medicine Alison D. O'Brien

E. coli That Cause Edema Disease: Molecular Analysis of Virulence

Mechanisms

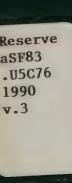
Total \$ 350,000













of
Research Activities
to
Livestock Industries

## Horses

1982 - 1990



#### CSRS

Horse Disease Research Funding  $1982\,-\,1990$ 

Special Grants

Competitive Grants

Hatch Formula

1433 Formula

7555

20 € 68 68 68 68 1 C

e the se

Area	Number of Proposals	Proposals Funded	Success	Amount Requested	Amount Granted	Commodity
BEEF AND DAIRY CATTLE						
Reproductive Diseases	42	9	14%	\$5,834.430	\$793,964	Beef \$494,042
Respiratory Diseases	38	ω	21%	\$4,933,150	\$1,105,878	Dairy \$299,922
						Beef \$812,703 Dairy \$293,175
Enteric Diseases	26	e	12%	\$3,275,132	\$344,670	Beef \$138,205 Dairy \$206,465
Metabolic Diseases	16	0	%0	\$2,399,048	0	Beef 0 Dairy 0
Parasitic Diseases	18	m	17%	\$2,485,014	\$343,987	Beef \$343,987 Dairy
Mastitis	17	2	12%	\$2,088,460	\$247,086	Beef Dairy \$247,086
SWINE					tot. cattle	\$2,835,585
Enteric Diseases Respiratory Diseases Reproductive Diseases		m40	25% 28% 0%	\$1,600,145 \$1,829,076 \$1,099,205	\$421,980 \$443,114	
Skeletal Diseases Parasitic Diseases	3 4	00	<b>%%</b>	\$ 526,791 \$ 439,356	00	total \$865 097
POULTRY						2005
Respiratory Diseases	18	. m	17%	\$1,988,061	\$396,895	
Immunologic Diseases Enteric Diseases	111	0 0	18%	\$1,528,017	\$227,895	
Musculo-skeletal- Diseases	S	0	%0		0	
SHEEP & GOATS	12	3	25%	\$1,615,446	\$267,004	
HORSES	19	2	112	\$2,053,444	\$160,202	\$267,
AQUACULTURE	9	2	33%	\$ 514,225	\$106,802	
SALMONELLA	19	4	21%	2,572	\$480,607	total \$106,802
TOTALS	293	45	15%	\$37,526,642		10
4+1001 1 100 1 101 101 101	Λ Τ	100000000000000000000000000000000000000				

(31 NON Animal Health Aquaculture received)

E21
13
10.00
C-to
12
20
00
600

	and the second	188 EM 1888	0.0	
	821. S. 1857			

## ANIMAL HEALTH AND AQUACULTURE RESEARCH SPECIAL RESEARCH GRANTS

#### Allocations of Funds by Panels Fiscal Year 1989

Panel 1 Beef and Dairy Cattle	1988 Allocation	1989 Allocation	1990 Allocation
Reproduction Diseases	879,185	791,266	793,964
Panel 2 Beef and Dairy Cattle			
Respiratory Diseases	1,235,788	1,112,209	1,105,878
Panel 3 Beef and Dairy Cattle			
Enteric Diseases	135,000	481,302	344,670
Metabolic Diseases	210,000	250,000	0
Mastitis	265,557	120,000	247,086
Bovine Parasitic Disease	457,557	110,000	343,987
SUB TOTAL	3,183,087	2,864,777	2,835,585
Panel 4 Swine Diseases			
Enteric Diseases	446,390	533,202	421,980
Respiratory Diseases	254,267	350,000	443,114
Reproductive Diseases	130,705	0	0
Other Diseases	149,973	0	0, 4
SUB TOTAL	981,335	883,202	865,094
Panel 5 Poultry Diseases			
Respiratory Diseases	398,333	322,378	396,895
Metabolic & Immune Disease	•	135,000	227,895
Enteric Diseases	79,751	89,909	0
Musculo-Skeletal Diseases	0	85,489	0
SUB TOTAL	703,084	632,776	624,790
Panel 6 Aquaculture			
Aquaculture (Animal Health		108,167	106,802
SUB TOTAL	108,167	108,167	106,802
Panel 7 Sheep, Goat and Horse Diseas	ses		
Sheep and Goat Diseases	270,417	270,417	267,004
Horse Diseases	162,250	162,250	160,202
SUB TOTAL	432,667	432,667	427,206
Salmonella (Panels 1, 2, 3, 4, & 5)	0	486,751	980,607
SUB TOTAL	0	486,751	480,607
ANIMAL HEALTH TOTAL	5,408,340	5,408,340	5,340,084

## Allegat one od florer og 7s is is

estrocoffs (6°°)	sufferells dist		E. S.
			etro fià
	960, 161		
B. R. E.		46A , C&S	
Use node			
C.			
marine for			
		The real	Marson tile Distances
		THE SEC	
		130,011:	
EZ.	<del>(</del> ,		
<i>\$80,138</i>			
		T	
		Fat . Pil	
		an or I	
	.201		
	1:A.@0s		
	M2.5:1		
891,783			
17 m _138 m			
	153		
APP Down 3			

ANIMAL HEALTH SPECIAL RESEARCH GRANTS AWARDS Fiscal Years 1979-1990

Total Projects Funds		12 \$ 953.690	10 \$ 715,957	000 997 \$ 7	4 \$ 346,565	30 \$2,482,212
1990 Projects Funds		1 \$ 100,000	1 \$ 60,202	0	0	2 \$ 160,202
1989 Projects Funds		0	2 \$ 100,000	0	1 \$ 62,250	3 \$ 162,250
1988 Projects Funds		0	2 \$ 162,250	0	0	2 \$ 162,250
1979-1987 Projects Funds		11 \$ 853,690	5 \$ 393,505	000,994 \$ 4	3 \$ 284,315	23 \$1,997,510
Commodity and Disease	HORSES	Respiratory Diseases	Enteric Diseases Musculoskeletal	Diseases	Internal Diseases	SUBTOTAL

## SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH HORSE DISEASES

ORGANIZATION & Investigator	AMOUNT	TITLE
GRANTS	AWARDED FOR FISCAL	YEAR 1982
University of Kentucky ALLEN	\$127,240	Epizootiology of Equine Herpesvirus Respiratory Infections
Louisiana State University KLEI	\$ 87,260	Development of a Vaccine Against Stronglus vulgaris in the Horse
. Total	\$214,500	
GRANTS	AWARDED FOR FISCAL	YEAR 1983
University of Florida BROWN	\$ 23,390	Body Fluid and Tissue Concentration of Antimicrobic Drugs in Horses
Purdue University BOTTOMS	\$110,668	Endotoxin-induced Effects on Vascular Endothelial Cells
University of Kentucky ALLEN	\$ 80,000	Antigenic Characterization of Equine Herpes Virus I With Monoclonal Antibodies
Total	\$214,058	
GRANTS	AWARDED FOR FISCAL	YEAR 1984
Washington State University MCGUIRE	\$ 64,999	Protection Against Equine Infectious Anemia by Immunization With a Synthetic Peptide
University of Tennessee BROWN	\$148,201	An Infected Cell Membrane Protein as a Cross Protective Vaccine for Alphaviruses
Total	\$213,200	

# MART OF RECORD WELLERS CALLED AND ACTORS

3.50 47

TWITCHEA

£5.

#### TO DET SET SEE SEE SEE STRAFF

#### SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH HORSE DISEASES

ORGANIZATION	&
Investigator	

AMOUNT TITLE

•			
	GRANTS	AWARDED FOR FISCAL	YEAR 1985
University ALLEN	of Kentucky	\$105,000	Antigenic Characterization of the Major Glycoproteins of Equine Herpes Virus I
Virginia P RIKIHISA	olytechnic Insti.	\$ 73,040	Pathogenic mechanisms and Immune Response in Potomac Horse Fever
	Total	\$178,040	
	GRANTS	AWARDED FOR FISCAL	YEAR 1986
Cornell Un TIMONEY	iversity	\$107,205	Identification/Synthesis of the Peptide of <u>S. Equi</u> Active in Mucosal Immunity
Washington MCGUIRE	State University	\$ 55,045	Protection Against EIA Variants With a Subunit Vaccine
	Total	\$162,250	
	GRANTS	AWARDED FOR FISCAL	YEAR 1987
University MORRIS	of Georgia	\$ 57,984	Endotoxemia in Equine Colic: a Platelet Activating Factor- Receptor Antagonist
Ohio State RIKIHISA	University	\$104,266	Development of a Vaccine for Potomac Horse Fever
	Total	\$162,250	

#### , FREELY LEEN, FLEETEN (ANDERS) ROMA PERMITTION OF THE RESIDENCE AND ASSESSED OF THE RESIDENCE A

#### The Least A

626 R 164	NATE SIE SESSEN	
് . പത ക് സ്വാസം ,മാം, സ്വാസ് നിവ ധിയ് ക്ക്		vday nut to v:
109° 102 - 10 - 11 - 22 - 1981		
	10	
erest to the erest of the erest		
Synthetic Electron of Electron	784 B C	82210 Palgaed 29
	Del. 1810	
FR01 .55: JA	DET RIE GEGGERA	1 MASS
Bedetarrais to Paying Colle: o Lateits Artical (or Eastern Newspior Naing is ac		

The present and the Postorer  New Yorks Author to Postorer		
Povel nyment of a Vancina Loc Potenci Actus se	805, 1018	

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA - ANIMAL HEALTH RESEARCH - HORSES PROPOSALS RECOMMENDED FOR FUNDING - FISCAL YEAR 1988

Institution	Title and Principal Investigat	or	Amount
Horse Digestive and E	nteric Diseases		
CORNELL - NY	Equine Endotoxemia: An in vitro Microvascular Model of Endotoxin-mediated Disease DAVID SLAUSON		\$125,00
UN of GA	Contribution of Tumor Necrosis to Equine Endotoxemia in Colic and Sepsis DEBRA MORRIS		\$ 37,250
		Total	\$162,250

PROTES A ME CONTRACTOR MARTINE PROTES - POLICIO - POLICIO MARTINE MART

green personal tennant has old in

monage to strate bus int

Corest buckey (% Tuest Merris not considered)

c. Equina Aniotessas of the expension of the expension of the constant of the c

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA - ANIMAL HEALTH RESEARCH - HORSES PROPOSALS RECOMMENDED FOR FUNDING - FISCAL YEAR 1989

Institution	Title and Principal Investigator	Amount			
Horse Digestive and	Enteric Diseases				
UN of GA	Dietary Modification of In Vitro Responses to Bacterial Endotoxin JAMES NEIL MOORE	\$ 50,000			
OH ST UN	Detection of <u>Ehrlichia risticii</u> Antigen by Capture Enzyme Immunoassay YASUKO RIKIHISA	\$ 50,000			
Horse Reproductive Diseases					
UN of IL	Evaluation of transplacental infection by Ehrlichia risticii CYNTHIA J. HOLLAND	\$ 62,250			
	Total	\$162,250			

( - <del>(</del> )

moreous of lecturist one elab!

not ustan

as Digestive and Enteric transc

AD

Dietair Modification of the Responding to the control of the contr

Rvolnackur of compositions intention of the Carlottes of

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA - ANIMAL HEALTH RESEARCH - HORSES PROPOSALS RECOMMENDED FOR FUNDING - FISCAL YEAR 1990

Institution	Title and Principal Investigator	Amount		
Respiratory Diseases				
Michigan State Univ.	Mechanism of Furosemides Action On Horse Airways N. EDWARD ROBINSON	\$100,000		
Digestive and Enteric Diseases				
Univ. of Georgia	Hemostatic Abnormalities in Equine Neonatal Septicemia DEBRA DEEM MORRIS	60,202		
	TOTAL	\$160,202		

COMMENT OF STREET STREET STREETS ASSESSED TO THE STREET STREET STREET STREET STREETS ASSESSED TO THE STREET STREET STREET STREET STREET STREET STREET STREET STREETS ASSESSED TO THE STREET STREET

parcettoour testestay bno sitti

B +021819

Neckniss of Researches a plan On heart letters W. L. Wil Rosingth

nessect Discovery

Hamostani Ababamaliyyan ib Squlma Nabratal Septiormia DEE#: DEZ HOTHYS

900 US

CSRS

Animal Health Research - Special Grants

#### HORSES

Year	Number of Projects	Dollars
1982	2	\$ 214,500
1983	3	\$ 214,058
1984	2	\$ 213,200
1985	2	\$ 178,040
1986	2	\$ 162,250
1987	2	\$ 162,250
1988	2	\$ 162,250
1989	3	\$ 162,250
1990	2	\$ 160,202

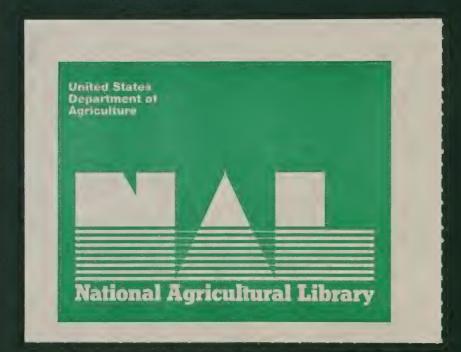








Reserve aSF83 .U6C76 1990 v.4



# of Research Activities to Livestock Industries

#### Beef and Dairy Cattle

1982 - 1990







U.S. DEPT. OF AGRICULTURE NATIONAL AGRICULTURAL LIBRARY 8862 -

resear weekself oliges inco but been

12 R. . 1898

# ANIMAL HEALTH SPECIAL RESEARCH CRANTS FISCAL TEAR 1990

Area	Number of Proposals	Proposals Funded	Success	Amount Requested	Amount Granted	Commodity
BEEF AND DAIRY CATTLE						
Reproductive Diseases	42	9	14%	\$5,834.430	\$793,964	Beef \$494.042
Respiratory Diseases	38	ω	21%	\$4,933,150	\$1,105,878	-
						Beef \$812,703 Dairy \$293,175
Enteric Diseases	26	m	12%	\$3,275,132	\$344,670	Beef \$138,205 Dairy \$206,465
Metabolic Diseases	16	0	%0	\$2,399,048	0	
Parasitic Diseases	18	က	17%	\$2,485,014	\$343,987	Beef \$343,987 Dairy
Mastitis	17	2	12%	\$2,088,460	\$247,086	Beef 0 Dairy \$247,086
SVINE					tot. cattle	\$2
Enteric Diseases Respiratory Diseases Reproductive Diseases Metabolic & Musculo	12	m40	25% 28% 0%%	\$1,600,145 \$1,829,076 \$1,099,205	\$421,980 \$443,114	
Skeletal Diseases Parasitic Diseases	4 K	00	<i>‱</i> ∞ ∞	\$ 526,791 \$ 439,356	00	
POULTRY						total \$865,094
Respiratory Diseases Metabolic &	18	en .	17%	\$1,988,061	\$396,895	
Immunologic Diseases Enteric Diseases	11	005	18%	\$1,528,017	\$227,895	
Diseases	2	0	%0	\$ 744,710	0	
SHEEP & GOATS	12	က	25%	\$1,615,446	700 2963	total \$624,790
HORSES	19	2	11%	\$2,053,444	\$160.202	total \$267,004
AQUACULTURE	9	۲	à			total \$160,202
SALMONELLA	19			\$ 514,225	\$106,802	total \$106.802
		94; 27	717	\$2,5/2,392	2480,607	total \$480,607
TOTALS	293	45	15%	\$37,526,642		5,340
(31 NON Animal Health A	Aquaculture r	received)	•			

(31 NON Animal Health Aquaculture received)

(mb ce (ma		1-8 % 5 (/)
	( ) S ( ) S ( )	

THE MINES, NEW 19 WHILE TAKE LETTINES

### ANIMAL HEALTH AND AQUACULTURE RESEARCH SPECIAL RESEARCH GRANTS

#### Allocations of Funds by Panels Fiscal Year 1989

Panel 1	Beef and Dairy Cattle	1988 Allocation	1989 Allocation	1990 Allocation
ranet 1	Reproduction Diseases	879,185	791,266	793,964
Panel 2	Beef and Dairy Cattle Respiratory Diseases	1,235,788	1,112,209	1,105,878
Panel 3	Beef and Dairy Cattle		-,,	1,105,676
taner 5	Enteric Diseases	125 000		•
	Metabolic Diseases	135,000	481,302	344,670
	Mastitis	210,000	250,000	0
		265,557	120,000	247,086
	Bovine Parasitic Disease	457,557	110,000	343,987
	SUB TOTAL	3,183,087	2,864,777	2,835,585
Panel 4	Swine Diseases			
	Enteric Diseases	446,390	533,202	421,980
	Respiratory Diseases	254,267	350,000	443,114
	Reproductive Diseases	130,705	0	0
	Other Diseases	149,973	0	0 .
	SUB TOTAL	981,335	883,202	865,094
Panel 5	Poultry Diseases			
	Respiratory Diseases	398,333	322,378	396,895
	Metabolic & Immune Diseases		135,000	227,895
	Enteric Diseases	79,751	89,909	0
	Musculo-Skeletal Diseases	0	85,489	0
	SUB TOTAL	703,084	632,776	624,790
Panel 6	Aquaculture			
	Aquaculture (Animal Health)	108,167	108,167	106,802
	SUB TOTAL	108,167	108,167	106,802
			-00,000	100,002
Panel 7	Sheep, Goat and Horse Disease			
	Sheep and Goat Diseases	270,417	270,417	267,004
	Horse Diseases	162,250	162,250	160,202
	SUB TOTAL	432,667	432,667	427,206
Salmonell	la (Panels 1, 2, 3, 4, & 5)	0	486,751	980,607
	SUB TOTAL	0	486,751	480,607
	ANIMAL HEALTH TOTAL	5,408,340	5,408,340	5,340,084

#### THE LAND WE WIND LOOK PLYNING

#### A. Providens of Buids by Parells Fiscal Year 1960

	presentle pro-	ogg attocating	
			elist' vitel bas is
	721 266		
	GR . \$ 21 1		
FA but		(60), 000	
	60.001		
	The state of the s		or are Danger the Cheene
\$ 0.50 \$ 0.50 \$ 0.50			
g ex C			
	St 1 1527	F DAL	
821,138			
		578, AI	
160 230			
004 54			
201,801	96,815		escentil your
		108, 167	
(Vayabi			
	£ 0.9 (0.6%)	270-417	
		GES SOL	
840 TEA			
	185 gillion		
300.2			

TABLE 3

ANIMAL HEALTH SPECIAL RESEARCH GRANTS AVARDS FISCAL YEARS 1979-1990

Commodity and Disease	Pro	1979-1987 Projects Funds	Pro	ject	1988 Projects Funds	Pro	1989 Projects Funds	199 Projects	1990 cts Funds	Proj	Total Projects Funds	
BEEF CATTLE												
Respiratory Diseases Reproductive Diseases	70	70 \$8,981,591	10	\$1,	10 \$1,235,788	2	\$249,976	9	\$812,703	88	88 \$11,280,058	058
(including Anestrus) 40	40	\$4,949,298	7	₩.	502,030	2	\$269,467	4	\$494,042	50	\$ 6,214,8	837
Enteric Diseases	34	\$3,376,148	7	S	245,000	က	\$332,959	-	\$138,205	40	\$ 4,092,	312
Metabolic Diseases	_	\$ 706,250	0		!	-	\$125,000	0	0	8	\$ 831,260	260
Toxicosis	2	\$ 456,162	0		!	0	1	0	. 0	ľ	\$ 456 162	162
Bluetongue	7	\$ 893,402	က	S	377,155	0	1 1	0	0	10	\$ 1,270,557	557
Internal Parasites	23	23 \$2,510,506	2	Ś	265,983	-	\$110,000		\$149,369	27	\$ 3,035,858	358
External Parasites	12	\$1,092,951	2	\$	191,574	0		2	\$194,618	16	\$ 1,479,143	143
Other Diseases	2	2 \$ 100,920	0		!	0		0	‡ 8	2	\$ 100,920	920
SUBTOTAL 20	200	\$23,067,228	23	\$2,8	23 \$2,817,530	6	\$1,087,402	14	\$1,788,937	246	\$28,	.07

je		C.			
			E) 2		
	5				
	63			6. 19.	
				c0 G	
	(A)				
100 B.A.					

ANDMAL HEALTH SPECIAL RESEARCH GRANTS AWARDDS Fiscal Years 1979-1990

Total Projects Funds	47 \$ 4,216,247 22 \$ 2,035,550 37 \$ 4,323,043 24 \$ 2,143,891 10 \$ 1,016,089 1 \$ 1,016,089 1 \$ 1,016,089 1 \$ 1,016,089 1 \$ 5,414 2 \$ 73,245 1 \$ 88,500 4 \$ 384,260	116 \$ 14,392,239
1990 rojects Funds	\$ 247,086 \$ 293,175 \$ 299,922 \$ 206,465 	\$ 1,046,648
Æ	8000055	œ
1989 Projects Funds	\$ 120,000 \$ 541,290 \$ 842,742 \$ 148,343 \$ 125,000	\$ 1,777,375
Proj	1 6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	18
1988 Projects Funds	\$ 265,557	\$ 365,557
1 1		C)
1979-1987 Projects Funds	3,943,604 1,201,085 3,189,379 1,789,083 791,089 132,414 73,245 58,500 0	119 \$ 11,562,659
197		₹ <b>\</b>
	42 14 14 19 8 8 10 11 11 11 11 14	119
Commodity and Disease DAIRY CATTLE	Mastitis Respiratory Diseases 14 Reproductive Diseases (including Anestrus) 28 Enteric Diseases 19 Metabolic Diseases 8 Bluetongue 1 Internal Parasites 2 External Parasites 1 Other Diseases 4	SUBTOTAL

dia.

100 3 6 0 0 10 16

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH BEEF AND DAIRY CATTLE DISEASES

#### GRANTS AWARDED FOR FISCAL YEAR 1982

ORGANIZATION & Investigator	AMOUNT	TITLE
University of CA B. I. OSBURN	\$120,000	Local Immunity to Bovine Rotavirus Infection in Calves and Maternal Lymphocyte Traffic
Univ. of Tennessee D. BRIAN	\$130,000	Development of Potential Enteric Coronavirus Vaccine: Sources Using Recombinant DNA
Ohio State University OARDC D. REDMAN	(Beef) \$ 27,396 (Dairy) \$ 37,604 Total-\$ 65,000	Defining the Role of Crypto- sporidosis in the Calf Enteric Disease Complex
Colorado State University R. PHILLIPS	\$100,000	Antibody Induced Malabsorption in Calves
University of Michigan R. ISAACSON	\$100,000	Mechanisms of E. coli Adhesion to Small Intestines
Iowa State University C. THOEN	\$102,204	Paratuberculosis: Development and Evaluation of an Enzyme Immunoassay
Ohio State University OARDC L. SAIF	\$130,000	Immunization of Cows with Rota- Coronavirus Vaccines and Protection in Calves
South Dakota State Univ. D. FRANCIS	\$ 22,596	Compounds Affecting Expression of K99 Adherence Pili on E. coli
University of CA D. JASPER	\$ 88,000	Monoclonal Immunoenzymatic Detection and Identification of Bovine Mycoplasmas
Ohio State University OARDC K. SMITH	\$ 45,712	Growth of Environmental Streptococci in Nonlactating Bovine Mammary Secretions
Cornell University G. DUNNY	\$100,000	The Molecular Biology of Virulence and Drug Resistance in Mastitis Pathogens

#### CARE A ST CARLER FILLERA FILAMA

10 Fm 7 1

774 10048

common to the first transfer or a design consist		
Mara 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
timinos la lagacal de c la carimaca a mai electrica el timinos como acomo el timinos como el carinos el carino		
riche the Brite . Typers Mids the Call Establ Discove Upeacon	001, 11 2 (100 1011 1 20 (100 2011 1 20 (100	
Antibod: Loduced Whisheorypion	0,000	Untro, etcy
Martinthon I E. mill Adiposes to Nell Ere stless		
President et established of ex-		63 £ 8 9 m22
and the state of the second se		
Introduction In the state		

el amenagentales

(continued)

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH BEEF AND DAIRY CATTLE DISEASES

#### GRANTS AWARDED FOR FISCAL YEAR 1982

ANIZATION & Investigator	AMOUNT	TITLE
Pennsylvania State Univ. R. WILSON	\$ 75,000	Functions of Mammary Gland Lymphocytes and Phagocytic Cells During the Dry Period
University of Kentucky R. HARMON	\$ 67,900	The Use of Anti-Inflamatory Agents to Reduce Milk Loss During Mastitis
Washington State Univ. W. DAVIS	\$ 67,588	Mastitis and the Major Histocompatibility Gene Complex
University of South Dakota S. WIKEL	\$ 80,000	Host Immune Resistance to Ixodid Tick Infestation: An Alternative Method of Tick Control
Ohio State University C. CAPEN	\$ 40,000	Induced Parturition & Vitamin D in the Prevention of Mineral Imbalances in Cows
Washington State Univ. R. LEID	\$ 80,000	Isolation of Protective Juvenile Fasciola hepatica Surface Antigens
Kansas State University A. BROCE	\$ 50,000	Potential Control of Face Fly by by Preventing Puparium Calcification
University of Pennsylvania C. RAMBERG	\$ 39,500	Mineral Imbalances: Responses to Treatment with Active Metabolites of Vitamin D
Iowa State University J. ROTH	\$144,555	Inhibition and Potentiation of of Neutrophil Function in Bovine Respiratory Disease
Auburn University P. SMITH	\$128,201	Stress-Induced Endocrine Changes in the Pathogenesis of Bovine Respiratory Disease

#### SERCIAS, REREARDE CUPRUM PRACESSON REGERMA AVIA LASTRAS AS EN EL SIAPON PERE LUGS RATER CATTES PRESIDERS

#### ERROR RANT ADDIE THE DOUBLEAN SINESS

1 ph m.

1. 4. 10

print to the contract of the c	
in, orthe Ef bookent to sa Long noutres - negrous fall Durt - cus he, Perko.	
magemajert-trad in a. edi tast Will soubed as a magh	
Management Linterpolation Process	บ(กปี ๑าลรร์
Host Ismante Rasista. " to Ly Ingile "Hell by estate An Alternative Mere and a 73ch Control	1 South Others
lefeeth . Att to tell becamed in Attention of the tell in the successful	
Tacker of Per or lavenile leavenile benefit be	Beare Modys
Potential Center for Sage Fly FR	1,5 t a con 2aU
a nimal A go seat agentage extra tana tana tana tana extra cana tana tana tana extra cana tana tana tana tana	
la Art por seel bes militi	

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH BEEF AND DAIRY CATTLE DISEASES

#### GRANTS AWARDED FOR FISCAL YEAR 1982

ORGANIZATION & vestigator	AMOUNT	TITLE
University of Wisconsin G. SPLITTER	\$150,000	Cellular Immunity to IBR and IPV Virus
University of Tennessee L. N. D. POTGEITER	\$149,886	Role of Bovine Virus Diarrhea Virus Vaccine Strains in Bovine Respiratory Tract Disease
	eef) \$116,455 iry) \$138,710 \$255,165	Genetic Control of Immunity in Cattle
University of Florida M. J. P. LAWMAN	\$122,138	The Cellular and Cell-Mediated Immune Response to Viruses of the Bovine Respiratory Tract
University of Wisconsin BISGARD	\$141,129	3-Methylindole Lung Toxicity: Mechanisms of Disease and Prevention in Cattle and Goats
Washington State University H. D. LIGGITT	\$134,802	Defense Mechanisms in Viral and Bacterial Infections of the Bovine Lung
University of Wisconsin N. J. WILSMAN	\$ 50,000	Ciliary Structure-Function and Diagnosis of Bovine and Porcine Respiratory Disease
University of California L. GERSHWIN	\$ 64,865	Role of Immunoglobulin E in Bovine Respiratory Disease
North Carolina State Univ. T. T. BROWN, JR	\$115,534	Effect of Viral Respiratory Infections on Local Pulmonary Defense Mechanisms of Calves
Cornell University H. N. ERB	\$ 72,260	Effect of Calfhood Diarrhea and Pneumonia on First Lactation Productivity and Health
Michigan State University E. CONVEY	\$ 97,048	Cortisol: Inhibitor of Normal Bovine Reproductive Postpartum

# ATTECTAL BYSEVEN LARGES REWERNERS OF THE PROCESS OF

#### IST F AV LADER 7" COMMA 25WASS

har iff na gainmat paeallag	000,0218	
Ross of Borden Viros Dimerban Viros Vencius Scrudens II donand Respissorny Tract Disesse	888 F118	
C situabili lesces stransa	501,5138 61,418 (4 5,0118 (3	
The fix letter and Col similar larguage heapaned a Vertical of the Boylae seat coat That		
Nederling laders bunn Poxicines Accommune of Discount d Prevencia 1: Certie no		
Bri son Mor endre. 1 Fing en America Lavedriance at him Bonde Long		
D. Prince and Province and Nor ing		
Rose of 'managines' in 2 in Shrine Rospinsin v Divass		
Stract of break Respitatory Description of Colver		
Effect of Callbood Dissibed ved to the control of t		
Cortain to reductive Passparing		

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH BEEF AND DAIRY CATTLE DISEASES

#### GRANTS AWARDED FOR FISCAL YEAR 1982

ORGANIZATION & westigator	AMOUNT	TITLE
University of AL-Birmingham P. ROY	\$130,847	Sequence Variation and Antigenicity of Bluetongue Virus Virulence Characteristics of BTV
Washington State University J. REEVES	\$143,692	Endocrine Control of Cystic Ovaries in Dairy Cattle
University of Illinois W. WAGNER	\$149,850	Contribution of the Adrenal Gland to Anestrus in Suckled Beef Cattle
Cornell University R. JACOBSON	\$ 39,975	Brucellosis: Detection of Latent Infection & Distinction of Vaccination Reactions by KELA
University of North Carolina P. BASSFORD	\$136,040	Expression of Leptospira Interrogans Surface Proteins in E. coli K 12
Texas A & M University L. ADAMS	\$ 86,255	Differentiation of Brucella abortus Strain 19 & Field Strain Antigenic Determinants
University of Vermont D. BORAKER	\$106,855	Natural Antibodies, Complement and Conglutinins: Roles in Brucellosis Serology
Colorado State University R. BOWEN	\$133,401	Virus Infections of Preimplantation Bovine Embryos
Iowa State University J. MAYFIELD	\$ 98,835	Cloning of Genes Coding for Infectious Bovine Rhinotracheitis Virus Antigens
Texas A & M University M. AMOSS	\$126,602	Neuroendocrine Correlates of Anestrus in Cattle

# MATERIAL PROPERTY OF STATES OF STATE

#### CRANCE ALARDED FOR FIRSTELL THE 1989

ELLIST LABORA

Pagesquag (Leday Ist a) Ab Lybrickey of Elekkongea "3 Vious of Elekkongea "3		
	\$\$0. Co.2	
Sent tibucica of the Airs, all Cland to Ambet, we in oneth Dwei Courie		
Stuneller and Desection of Tateact Intraction & Dist noting of Vaccinetion Reaction, by MILL		re/
Estate of Laurence Course of Laurence Course of the Course		ବରୀ ଫିଅଟରିଆନର
Esserate stated of the second		
Takwal kutibotten, comen na am derglebterenf, besen 18 Eurelleess sergios:		
le ampleois de Para Para Para Para Para Para Para Par		
ros pathoù semed in galeeld sa sol evets. Essignesse		

# SPECIAL RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH BEEF AND DAIRY CATTLE DISEASES

#### GRANTS AWARDED FOR FISCAL YEAR 1983

ORGANIZATION & Investigator	AMOUNT	TITLE
West Virginia University INSKEEP	\$127,900	Roles of FSH and Uterine Luteolysins in Luteal Function in Anestrous Cows
Texas A & M University HARMS	\$148,650	Neuroendocrine Control of Luteinizing Hormone Releasing Hormone During Anestrus in the Cow
Oklahoma State University WETTEMAN	\$133,708	Nutrition and Anestrus in Beef Cows
Washington State University REEVES	\$149,986	Endocrine Control of Lactational Anestrus in Beef Cows
Colorado State University BEATY	\$132,690	Nucleic Acid Hybridization Prober: Diagnosis of Bovine Viral Reproductive Disease
Cornell University WINTER	\$123,889	Development of an Effective Nonviable Vaccine for Bovine Brucellosis
Texas A & M University SOWA	\$ 83,930	Strain specific B. abortus Antigenic Analysis Via 2-D Gel Electrophoresis
Cornell University BUTLER	\$149,788	Identification of Pheromones and Other Compounds in Dairy Cows at Estrus
University of California STOTT	\$132,414	Development of a Highly Sensitive Virus Detection Test for Bluetongue Virus in Bulls
North Carolina State University BRITT	\$ 63,984	Endocrine and Nonendocrine Determinants of Expression and Detection of Estrus
University of Iowa BUTLER	\$ 74,770	Characterizations and Microquantitation of Bovine Immunoglobulins (Igs) and Specific Antibodies

## SECRETAR SETERAL CRASTA CONSTRUCTOR SERVERS AND TALLEY CATTER DESAFERS

#### CRAFTS AGARDED FOR FIRSTALL FRAM 1981

Y FITT - WORKA

		respect the first of selection of the se
	126 OSTS	Seumbendo rija Gaactil of Letefila dicemba Milasiaa rijadou stilleg angatija fe Cop
Uneverter		
tilesowit C ose		dooring Cuntrol of Borrarional
Univers1.7		Ruciele Acia Rebridicality Paobert - Plasaciae of Police Vical Reproductive Diocess
fiteroul ;		Serven apreific B. Phesung And and Analysis Vis Pr Me. Electrophotenia
		Tourdittation of Pharmas to the part Core of Stuffer Cores of Stuffus
		Development of a Migraly South to vigne Debection 7032 For Microscopes Vicus in Suice
		Endonnanell bas primatell Endonnanell bas primatell Endonnanell bas part

Acre and Micro

ORGANIZATION &	AMOUNT	TITLE
University of Wisconsin LETCHWORTH	\$150,000	Molecular Analyses of Humoral Protection in IBR
University of Pennsylvania LAWRENCE	\$131,924	Infectious Bovine Rhinotrachetis Virus: New Approaches to the Analysis of Latent Infections
Michigan State University ROBINSON	\$100,000	Role of Endotoxin and Neutrophils in Bovine Pneumonic pasteurellosis
University of California BRUSS	\$100,000	Toxic Mechanisms of Respiratory Infection by <u>Pasteurella</u> haemolytica in Cattle
Oklahoma State University CONJER	\$149 <b>,99</b> 9	Bovine Immunity: Pasteurella haemolytica Capsular Antigens and Cytotoxin
University of Minnesota MARKHAM	\$ 50,000	Adherence of <u>Pasteurella</u> <u>haemolytica</u> to Nasal Epithelial <u>Cells in vitro</u>
University of Wisconsin COLLINS	\$ 95,554	Isolation of Protective and Immunogenic Antigens of Pasteurella haemolytica
University of Wisconsin SCHULTZ	\$ 66,982	Liposome-antibiotic Enhanced Bactericidal Activity of Phagocytic Cells
Washington State University CORBEIL	\$ <b>75,</b> 537	Haemophilus somnus Infections of Cattle
Louisiana State University CORSTVET	\$149,851	Viral Effects on Bovine Lung Resistance to Pasteurella haemolytica in vitro
Texas A & M University WOMACK	\$ 52,731	Molecular Genetics of Interferon and Resistance to Bovine Respiratory Disease

#### SEESLAL FRANCIS SCHOOL PRODUNG PROCEASE CLA ANTENAL MALE IN CASTAL SECT AND CASH CASTAL SPASSO

્ટર્જા સાલો		
1.178F		
transcript of the section of the sec		
	8189 928	
News one Practions of Practice Chemocal: paoleure Chemocal:	8180,009	years and
Tori: Nobesten of tornirators in the by Ponty or 's gold the to Cettle		of California
Bostro Laments: Espondila Milmeria Log Gapa d'es Enter de and uprotection		valossvieli sa a
Adberence of Post Acroling to constitution to accur Spiritaline		Minnesoro
		11 t
ldpoesmerettte 53 Banared Pe testululi kotivism si Phagonyrko kolla		
Remarks of the second of the s		
Verst Effects on Berth: Long		
entralement of laboration		

ORGANIZATION &	AMOUNT	TITLE
Auburn University ROSSI	\$148,653	Infectious Bovine Rhinotracheitis Virus, Latency and Respiratory Disease
University of Kentucky R. HEMKEN	\$100,000	Relationship of an Endophytic Fungus in Tall Fescue and Summer Toxicosis in Cattle
Washington State University T. YILMA	\$149,985	A Subunit Vaccine and Rapid Diagnostic Kit for Vesicular Stomatitis
Colorado State University R. PHILIPS	\$ 39,822	Antibiotic-induced Malabsorption in CalvesThe Role of Bacteria and Viruses
Michigan State University T. HERDT	\$ 37,842	Nutritional Consequences of Cryptosporidiosis in Calves
Kansas State University E. COLES	\$ 80,000	An Enzyme Immunoassay for Endotoxins in Body Fluids in Cattle
University of Iowa J. BUTLER	\$ 75,000	Characterization and Microquantitation of Bovine Immunoglobulins (IGS) and Specific Antibodies
Ohio State University R. HERD	\$109,552	Hypobiotic Changes in Ostertagia During Environmental Adaptation
Ohio State University K. THEIL	\$ 89,784	Bovine Rotaviruses: Molecular Epizootiology and the Quest for Serotypes
Washington State University C. GAY	\$100,000	Colibacillosis: Neonatal Septicemia and Endotoxemia in Calves
Pennsylvania State University R. EBERHARD	\$ 53,607	Factors Affecting Teat Skin Microflora

## ENTITLE ETSTAGES CROSS SANTIES CONTROLLED CO

#### FREI RARY ADRIVE STY CERMANA MICHAEL

13177

and the part of the desired the		
Antropens, decreased in a state of the parameter blum.		
Letetrouver of an Badwabaran Verges to Sail Person Supart Tothers f Let	390,	
W Sachanti na mor ken Dinginatik Mil kar Vaskaka maristi	+86,8548	Steer University
Austrionder Lains Anderscher auch Beetriche Austrieben		ts. to the treme is a
e. 2007 the are appropriated to the second t		n University
Characterine lts and blerennistication of Aurica Immunigionalina (1561) en Ergetitte bur beatte		
Events Sevice Charges 10 Johnston		
Sovino Ratevienses Melecques Spieser tology and the Coert las Salut resp		
inter-ea especianolica est inter-eati bus		
Feat feeting Two Stin		

#### GRANTS AWARDED FOR FISCAL YEAR 1983

ORGANIZATION & Investigator	AMOUNT	TITLE
University of Massachusetts S. OLIVER	\$ 75,000	Resistance to Bovine Mastitis Following Accelerated Mammary Involution
Michigan State University P. BARTLETT	\$ 43,733	Economic Impact and Cost Benefit Analysis of Bovine Mastitis
Cornell University M. WHITE	\$ 65,000	Coliform Mastitis; Immunologic Control Utilizing the J5 Mutant of <u>E. coli</u>
University of Illinois J. Shadduck	\$ 40,000	The Effect of Milk Fat, Casein and Endothelial Selection of Bovine Neutrophils
Louisiana State University S. NICKERSON	\$ 71,000	Cytological Evaluation and Immunostimulation of Bovine Teat End Tissue
Washington State University W. DAVIS	\$ 50,000	Application of Monoclonal Antibody to Measure Resistance to Mastitis
Ohio State University K. SMITH	\$ 44,323	Environmental Mastitis Control and Dietary Selenium and Vitimin E
Auburn University C. SCANLON	\$ 50,000	Development of a Leukotoxin Toxoid for Bovine Fusobacterium necrophorum Infections
Washington State University T. MCGUIRE	\$149,274	Development of a Subunit Vaccine for Bovine Anaplasmosis
Oklahoma State University K. KOCAN	\$ 70,000	Developmental Cycle of Anaplasma marginale in Dermacenter andersoni
Oklahoma State University R. WRIGHT	\$ 69,600	Impact of Face Flies on Pinkeye in Cattle: Transmission of Moraxella bovis

Total \$4,156,462

## SPECTAL TOTANT THE TAX TO BE AND THE TRANSPORTED TO THE TRANSPORT OF THE TRANSPORTED TO THE TRANSPORT OF THE

#### CRANTS ANAMARIA NOT MARKAL STAR TO

THE PROPERTY OF THE PROPERTY O

tem en val a oca tejapa		
e so st tom now a formand t. 11176 and the fire east land	6 43. 33	interprise to
21%-Juniori in stract modil of	700,84 7	
The Fift of mind of and		erorica lo
ina isofferi i citari laru e alio.	\$ 73 or	Mara Bolteralty
Application of the sum a first and the sum of the sum o		State Walversiay
En strommuntel Marcrot, Goorg and Distory beterion and Pintell E		V2. V6291.FV
Semelander of a lemborous a Transfell to became Engelanteling Englished to Infocution		
Comete and the second terms of the second se		
The eldpenneral Cycle of the Agrange		

ORGANIZATION & Investigator	AMOUNT	TITLE
University of Missouri GARVERICK	\$119,982	Relationship of Anestrus to Subnormal Luteal Function in Cattle
Colorado State University NETT	\$117,132	Factors Regulating LH Synthesis in Postpartum Beef Cow
Virginia Polytechnic Insti. SCHURIG	\$100,000	Brucella abortus Antigen Expression: Understanding and Applications
Texas A & M University FICHT	\$149,467	Cloning and Expression of Protective Immunogen Genes of Brucella abortus
Colorado State University BOWEN	\$ 74,852	Interferon Production and Response in Preimplantation Bovine Embryos
Washington State University CORBEIL	\$149,677	Reproductive Infections with Haemophilis somnus: Diagnosis and Immunity
University of Nebraska ANDERSON	\$103,000	Immunoperoxidase and Monoclonal Antibodies: Diagnosis of Bluetongue Virus-induced Fetal Disease
Colorado State University BLAIR	\$101,103	Pox virus as a Cloning Vector for Immunization Against Bovine Herpes Virus I
University of Florida DROST	\$123,784	Reducing Embryonic Mortality Associated with Heat Stress and Repeat Breeding
University of Wisconsin GINTHER	\$ 98,905.	Evaluation of the Bovine Reproductive Tract by Real-time Ultrasound
Purdue University ALLRICH	\$104,039	Endocrine mechanisms Contributing to Non-detected Estrus in Postpartum Dairy Cows

## GROCIAL SEPRINCE ONITS OF COUNT. SECRETARY CARRY CATEGORS OF SECRETARY COUNTY.

#### CHANCE ARRESTS FOR PLACE THAT TORREST

		Falschaffen of Rasserss Lower ton se
	£117,132	Pacauca Regulation (1988-19.
alsoni s	020, 2059	20 M andrew Antigon
		Cleaning and Everyment in Frotver were Dean to the second second to the second
. Vertusenter		la estavo Projugnian Remponen III Stelvinian L Levine Embryos
University		Peursductri laledring with hard with a cost and the saudity
		es form has weakly openions for a sample was a Libert Constant of the same of
		Pox virus es a Clomasa Tacent Sor Jummitation Agains
		Sedering bebryvelt Hosealirs Association with Sent Street and Regree Freedig.
		e

ORGANIZATION & Investigator	AMOUNT	TITLE
University of Florida LAWMAN	\$149,377	Recombinant Interferons and Macrophage Mediated Defense of the Bovine Lung
University of CA-Davis GERSHWIN	\$102,449	The Role of Immunoglobulin E in Bovine Respiratory Disease
University of CA-Davis BRUSS	\$ 50,444	Immunologic and Toxic Properties of P. haemolytica Endotoxin in Bovine Pneumonia
Washington State University MAGNUSON	\$149,939	Molecular Cloning of the cDNA Gene for Bovine Interleukin-2
Washington State University LIGGITT	\$149,145	Mechanisms of Virus-induced Suppression of Bovine Lung Mucosal Defense
University of Wisconsin SPLITTER	\$150,000	T-lymphocytes Function Against IBR Virus
Kansas State University BLECHA	\$150,000	Interleukin Regulation in Stressed Feeder Calves
University of Wisconsin CZUPRYNSKI	\$139,647	Bovine Phagocyte Interaction With IBR Virus, Pasteurella and Haemophilus.
University of Tennessee WALKER	\$149,817	Antibody Response in the Bovine Lower Respiratory Tract to Inhaled P. haemolytica
University of Wisconsin LETCHWORTH	\$150,000	Potential for Vaccine-induced Antigenic Variation in Bovid Rerpes Virus I.
Cornell University TORRES-MEDINA	\$148,087	Bovine intestinal immunity: Antigen Uptake by Epithelium of Peyer's Patches
Louisiana State University STORZ	\$133,666	New Methods for Detecting Bovine Chlamydial Infections

## TOTAL SAFER OF THE SAFER SAFER

#### ANG MARY FORES FOR CHORAGE STNARD

		generaled for the delegant for a least the second s
		the Sale of free egionals; ;
	19.9 Mg 8	isomerically and Tests Properties of Firegraphytics Endoronic in beview P. sements
60200000000 v.v28, ,		Rent sets to retain an unscott
tate University		Hechartens or Virgorinthood Suppression of Buying Limit
ntenocett -		T-lymphocytes Footlen Against
te University		Interteokto Magolo: Los Ita Strennet Feeder Carvas
of Wisconsia		Ne. we Passary a Yorker : 14 a with ion Virus. Estimatelds
		Anulbody Response in the Bruzer to test to Trace
		•

endered to trouble to

ORGANIZATION & Investigator	AMOUNT	TITLE
Iowa State University WOODE	\$100,000	Virus and Cryptosporidium as Causes of Diarrhea in Newborn Calves
University of Wisconsin COLLINS	\$ 47,908	Rapid Detection of Mycobacterium paratuberculosis Using Radiometric Techniques
University of Wisconsin HANSON	\$ 50,000	Vesicular Stomatitis Virus: A Molecular Biological Study on the 1982-84 Epizootic
Washington State University BREEZE	\$ 96,186	A Vaccine Virus Recombinant Amplification System for Bovine Viral Subunit Vaccines
Colorado State University BRENNAN	\$126,057	Serodiagnosis of Paratuberculosis Based on Specific Glycolipid Antigens
University of Connecticut YANG	\$117,186	Immunoregulatory Role of Lymphocyte Subsets in Resistance to Bovine Mastitis
University of Massachusetts SEVOIAN	\$100,000	Reagent/Methods/Characterization of Immune Response to Bovine Mastitis
Cornell University NORCROSS	\$ 79,000	Evaluation of a Staphylococcus aureus Vaccine for Bovine Mastitis
University of Kentucky LANGLOIS	\$ 85,014	Importance and Prevalence of Non-Staphylococcus aureus Species Associated with Mastitis
Cornell University SCOTT	\$ 60,000	Biomechanics of Dairy Cow's Teat Related to Mastitis and Machine Milking

## THE STORM OF THE STREET OF A S

WANTS ARABEL FOR ATSTAL VELK 198.

Person and Transperson or and the Presson of the Pr		
Eu Teller Desert S ES (Interes blyes)	800, C3 &	
		galocarini oses ii
Sertelaronsis of Pare tiberoulouke losed in Breci to Ciyeciipid Actigans		Unluaroisy
immersegel reer krig e? Lyn derijee Stonets in Bessel nie te Bovior Maccilis		af Coursetteur
E. Sgrack of novellations of the Parties of the Parties of the Manife's Manife's Action		; Heesschusetts
gangal rimati a to moltsulari anival soatasak ala anival soatasak		
a morelarens hos so		

a maglaveni hos so local magnatical la Seculocal

service that would be a.

ORGANIZATION &	AMOUNT	TITLE
Louisiana State University WILLIAMS	\$104,881	Control of Gastrointestinal Nematodes of Cattle by Management Practices
Washington State University LEID	\$112,494	Isolation and Cloning of Protective Juvenile Fasciola hepatica surface antigens
Louisiana State University MALONE	\$ 70,548	Cattle Liver Flukes: Effect of Climate on Disease Risk and Control
Kansas State University BROCE	\$ 51,634	Role and Identification of Ovipositioned Attractants for the Stable Fly in Aged Manure
Auburn University WEETE	\$ 74,423	Chemical Basis for Virulence Among Fusobacterium necrophorum Biotypes A, AB, and B
Total	\$4,139,803	

#### ANAMONS ANAMOND FOR PICCAL FARR 1980

Contract of which the second of the second o		
The last or and display as a principal of the principal o		
Cast RES C. res Flacker: Sffers of theore on the cast RES and Contain	2소년 6년 <b>원</b>	a Unespecially
M. le ent léan. Iflestin, el		e University
Checkiel Berts for 74 sskers. Aming Phydbotsering 19272 hig 5.2 8ti jor A. ** mic v		

E 10, 801, 24

# ANIMAL HEALTH SPECIAL RESEARCH GRANT PROPOSALS RECOMMENDED FOR FUNDING FISCAL YEAR 1985

#### Beef and Dairy Cattle Reproductive Diseases

Be	er and bairy cattle Reproductive bistage	
	A subunit vaccine for trichomoniasis	\$149,984
State U.	Molecular analysis of latent infection with Bovine Herpesvirus Type 1 (BHV-1). Rock	149,841
IA State U.	Molecular aspects of the interactions of B. abortus and bovine neutrophils. Roth	97,302
CO State U.	Cryopreservation of bovine embryos in chemically defined media. Seidel	66,047
WA State U.	A polyvalent vaccinia virus recombinant vaccine for bluetongue. Yilma	139,303
TX A&M U.	Genetic control of macrophage function in bovine brucellosis. Templeton	136,331
CO State U.	Nucleic acid hybridization probes: Diagnosis of bovine viral reproductive disease. Beaty	148,381
U. of IL	Placental hormone synthesis and retained placenta in dairy cattle. Wagner	149,935
<u>B</u>	eef and Dairy Cattle Respiratory Diseases	
IA State U.	Activation of neutrophils to enhance resistance to BRD. Roth	149,748
MI State U.	Neutrophil-mediated mechanisms of lung damage in bovine pneumonic pasteurellosis. Slocombe	146,714
OK State U.	studies of pathogenesis and immunogenesis Gentry	150,000
U. of CT	Identification and characterization of P. haemolytica protective antigens. Renshaw	149,765
LA State U.	Effect of in-vivo components of  P. haemolytica on bovine lung disease.  Corstvet	112,373

ESTACONOS TRACOS CONTRACTOR SACONOS PARTES ACCURATOR DE CONTRACTOR DE CO

Page apply the decompose of the page

REF CARS - Ludwinderstaling ros polocov de A

Molecule: Realyale of level: 169.6: 169.6:

Rolecula, aspace, of the inscinctory of

Car Allega estate de la constitución de la constitu

polyvelent vaccials visus socoa laar:

Carotte aquerol of macrophago lungilon

edele meid bybildtration grotelia Lognomia of borine viez. : eproduktiva

Placents in dairy catelo. Polacio

consecto year-plant plants writed ban les

Accidence of acute bila co annonce

Worl ophi -codine proudent partice ingo Juen danago i povine proudent participalitical diocombe

. Catal to book poor

To moissals

309,762

F.868

## Beef and Dairy Cattle Respiratory Diseases (continued)

U.	of NE	Lymphokine regulation of antibody production in bovine repiratory infections. Srikumaran	149,269
U.	of MN	In-vivo investigations on potential pathogenic factors of <u>P. haemolytica</u> . Maheswaran	112,374
U.	of TN	Cloning and hybridization probes in pathogenesis of BVD virus respiratory disease. Potgieter	149,418
	Beef	and Dairy Cattle Enteric and Digestive Diseases	<u>.</u>
U.	of TN	Development of enteric coronavirus vaccine sources using recombinant DNA. Brian	150,000
OH	State U	. Pathogenesis of coronavirus infections and passive immunity in calves. Saif	149,996
WA	State U	. Subunit and synthetic peptide vaccines and rapid diagnostic kits for vesicular diseases. Breeze	57,000
WA	State U		93,640
OR	State U	. Pathogenesis of Tillamook calicivirus infection in calves. Barlough	90,000
		Dairy Cattle Mastitis	
ОН	State U	. Pathogenesis of coliform bacteria in the nonlactating bovine mammary gland. Smith	70,915
PA	State U		134,360
U.	of IL	Intracellular signaling and modulation of bovine mammary leukocytes and endothelium. Shadduck	100,000
υ.	of WI	Liposome antibiotic activated phagocytes to treat and/or prevent mastitis. R. D. Schultz	63,164

	Lyggha a seion of ant. nody occineran
692,511	
	Intifesses no suntres result sell-nl
	Vidialities to the in alapsoners of the contract of the contra
	sale derived as shorter stated were b
al0.0#1	
800 B0:	ics carterini intivaneron is at
000,68	
	ALCY AND SELECT A 20 INSUGALETON
658.0£	Pathoganomia of Thiladole as Hotriton
	Function of somery disch languester the
100,000	
181.00	
	et Con a

#### Beef Cattle Parasites and Metabolic Diseases MT State U. Bovine coccidiosis: Antigen analysis and immunization. Speer 97,235 Acquired and induced tick resistance: U. of ND Antigen analysis and isolation. Wikel 100,000 Development of a subunit diagnostic WA State U. test for bovine anaplasmosis. Palmer 50,131 Beef and Dairy Cattle Johne's Disease Molecular phylogeny of Mycobacteria U. of IL directed to Johne's disease diagnosis.

Stahl

Total

\$3,457,080

143,854

# Porte Caralist Caralist Caralist Caralist Caralis Cara

Ha lat phylogeny e disconstanted of the opening

125, 21

## ANIMAL HEALTH SPECIAL RESEARCH GRANT AWARDS FUNDED FISCAL YEAR 1986

Institution	Title and Principal Investigator	Amount
Seef and Dairy (	Cattle Reproductive Diseases	
:A A&M U.	Construction of Improved <u>Brucella</u> <u>abortus</u> Vaccine Strains via Transposon Mutagenesis. T. A. Ficht	\$149,770
TX A&M U.	Specificity of T Lymphocytes Responding Brucella abortus: A Clonal Analysis. R. Smith	\$149,919
NC State U.	Pathogenesis of Bluetongue Virus Infection of Cattle. N. C. MacLachlan	\$145,300
U. of FL	Epidemiology of Bluetongue Virus in Central America and the Caribbean. E. C. Greiner	\$ 74,750
WA State U.	A Subunit Vaccine for Prevention of of Haemophilus somnus Reproductive Disease. T. J. Inzana	\$113,399
U. of CA	Refinement of Genetic Probes for the Detection of Bluetongue Virus in Infected Animals. R. Y. Chuang	\$149,945
LA State U.	Brucella abortus Vaccination and Immune Response Genes in Beef Cattle. M. J. Newman	\$136,334
Beef and Dairy	Cattle Respiratory Diseases	
WA State U.	Role of Arachidonate Metabolism in Virus - Induced Alveolar Macrophage Dysfunction. M. B. Liggitt	\$149,431
U. of FL	Complement Mediated Defense Against Respiratory Disease Complex. A. F. Esser	\$149,890
OK State U.	Characterization of Immunogenic Carbohydrate - Protein Subunit of P. haemolytica. A. W. Confer	\$147,930

## ANIMAL WEST THAT THE PERCHANT AND ANIMAL PART THAT THE PROPERTY THAT THE PROPERTY THAT THE PROPERTY THAT THE PERCHANTER PROPERTY THE PERCHANTER PERCHANTE

incork ogs fj

Company of Tax marks of calls of nonesco

Smeeteld of Taymonal, 193 kosopoding

ments of discrements lines of the course lines to the course of the change of the course of the cour

Egraduriacy of Bluctonose Virus W Central America and the Cariffican. E. C. Greiner

A Subunit Vaccine for frayerrian of or damo its semmys Revolute vo Disease. . . Lasens

het noment of Sumeth: Pro ex for the transfer between the transfer by as in the transfer by as in the transfer by the last of the transfer by the last of the transfer by the last of the between the

31 26 37A

154 4616

espire dollared delaber est.

Streams December h. I. Esper.

164, 1518 | Temperature | 1811, 1821 | 1811, 1831 | 1811, 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 | 1831 |

Beef and Dairy C	attle Respiratory Diseases (continued)	
U. of WI	Heterogeneity of the Cellular Response Against Bovid Herpes Virus-1 Glycoproteins. G. J. Letchworth	\$149,999
U. of WI	Bovine Leukocyte Modulation by Components of P. haemolytica. C. J. Czuprynski	\$147,867
U. of CA	Bovine Respiratory Syncytial Virus Specific Ig E: Role in Pathogenesis. L. Gershwin	\$147,359
TX A&M U.	Molecular Differentiation of Noncytopathic and Cytopathic Isolates of BVD Virus. E. W. Collisson	\$148,188
U. of WI	Effector Cell Function Against IBR Virus. G. Splitter	\$ 39,004
Beef and Dairy C	Cattle Enteric and Digestive Diseases	
LA State U.	Resistance Factors in Cornaviral Infections of Calves. J. Storz	\$141,971
WA State U.	Protection of Calves Against Cryptosporidiosis with Anti-Sporozoite Antibodies. J. Perryman	\$113,857
TX AAM U.	Rotavirus Vaccination and Studies on Protection Between Different Serotypes. G. N. Woode	\$109,988
U. of CA	Imunoassay Screen for Hepatotoxic Pyrrolizidine Alkaloids in Cattle. M. E. Mount	\$106,000
WA State U.	Mechanisms of Protection Against Calfhood Colisepticemia. L. B. Corbeil	\$ 69,008

	least leasterformy literates trans west.
	Ageing Boy'd Herpes Virus-1 Slyin AD'73
	Bowton Rosette ton benevale Prov Specific Lq E. Bose In Estraggests L Gersacin
	en Cyropaene leolates et PVC Vilus- E. W Colliason
FA- {	Effector tell terrelon Act 184 Wiret. G. Splitter
	Sectionic ballscoll (no bines) blass of
₹ <b>9</b> *	Rostacener Factors in Corney rel
E is	ranteck sealed to no species of Canton's consensation and consensations of the consensations
	Receptous Vaccingtion and Scoting up Pro ection Getween Cofferent Service? G. 1. 1800
ur 8618	!mirgassay Screen for Meger nosis Pyrrolizidine Albalotdy in Cattina Mu E. Mount
800.68 2	Mec united of Protection Against Collection Col septicents. L. S. Curbons

Beef Cattle Parasitic and Metabolic Diseases			
U. of MO	Detection of <u>Anaplasma marginale</u> in Bovine Tissue by In-Situ Hybridization. G. M. Buening	\$ 96,147	
WA State !!.	Cloning of Protective Juvenile <u>Fasciola</u> hepatica Antigens. R. W. Leid	\$120,187	
Dairy Cattle Mas	titis		
U. of CT	Immunoregulatory Role of Lymphocytes Subsets in Resistance to Bovine Mastitis. T. J. Yang	<b>\$</b> 114 <b>,</b> 356	
WA State U.	Genetic Resistance to Mastitis. W.C. Davis	\$127,357	
WA State U.	Vitamin A and B-Carotene Effects on Phagocyte and Lymphocytes Functions in Vitro. B. P. Chew	\$ 82,787	
Beef and Dairy C	Cattle Johne's Disease		
U. of WI	Application of a DNA Probe Specific for Mycobacterium paratuberculosis.  F. A. Splitter	\$ 54,084	
U. of CA	Direct Identification of Mycobacterium paratuberculosis in Cattle Feces. H. P. Riemann	\$ 54,083	

Total

\$3,188,910

#### Personal actions and all the personal

Secondary of Ang learny expending to Bouled by Transport of the West of the West of the Business of the Busine

Cloning of Protective Justilia Tassing

Immunoregularory fold of Established Colors Marshitt (1981) Vang

fonce of destrators to west that the IRC. Who

Vite its a and it is tong "facts
on Prayagyte and Lynghicy is furthern
in Viters. E. P. Ohee

TERRET TO E CHANGE PLANE

Avietas of Tall sales of the Second Second of Tall and the sales of th

The State of the case of the sale of the s

#### ANIMAL HEALTH SPECIAL RESEARCH GRANT AWARDS FUNDED FOR FISCAL YEAR 1987

Institution	Title and Principal Investigator	Amount	
Leef and Dairy Cattle Reproductive Diseases			
Cornell	A simple assay for screening efficacy of Brucella abortus vaccines in cattle WINTER	\$128,495	
U. of CA D	Haemophilus somnus reproductive infections: Diagnosis and immunity CORBEIL	\$150,000	
U. of W VA	Roles of LH and uterine luteolysins in luteal function in anestrous cows INSKEEP	\$113,853	
U. of WI	Early embryonic loss in heifers GINTHER	\$150,000	
Texas A&M	Genetic control of macrophage fuction in bovine brucellosis TEMPLETON	\$74,372	
U. of WY	Dynamics of host-virus interaction in bluetongue: Host specific immune response ELLIS	\$144,892	
WA ST U.	Endocrine control of lactational anestrus in beef cattle REEVES	\$149,972	
Beef and Dairy Cattle Res	spiratory Diseases		
Texas A&M	Molecular Genetics of Interferons and Resistance to Bovine Respiratory Diseases JAMES E. WOMACK	\$150,000	
U. of Wisc.	Effector Cell Recognition of BHV-1 Gly- coproteins Gene GARY SPLITTER	\$150,000	
IA ST U.	Immunosuppression and Immuno-Modulation in BVD Virus Infection	\$149,459	
U. of Wisc.	Effects of 4-Ipomeanol on Bovine Viral and Bacterial Pneumonia WILLIAM L. CASTLEMAN	\$150,000	

#### ANTONI, PHATCH SHAFFAR PRISONER Emeral will of Securities from Florice (LAF 1960)

#### If the grate (estrated has a latif

#### edry Cattle Rescoduteive Discoses

A Stanton Late of Manufacture of the Control of the Control of Manufacture of the Control of the

Reemonblies som in Franchischer. Sefficklone: Diagness and Acceptig Grant

Pries of it and proving Later 19.00

Sarly embryonic loss 'n beijer: Communi

Semesto estarol of saraydage lucklon En blockes brudelists a Trockes

Symmetry of business a talesschool Diggs (184, bluetensum) Property

Enterrive control or lactational analyses 1929, 1974 in bec. catches and catches are supplied to the catches and c

#### cranauti getarine siani

Molecular Generics of Interverse and Rilling Confession Responses to Borine Measuratory Ottobacon
Americ L. 1890.CE

802.12.08

B2 & , C & L &

0000

U. of Tenn.	Effects of P. haemolytica Pathogenic Factors in Bovine Pulmonary Endothelium MICAEL BREIDER	\$146,616
U. of Neb.	Bovine Respiratory Syncytial Virus: Subunit Vaccine, Immunity and Rapid Diagnosis GARY ANDERSON	\$96,175
Wa. ST U.	Recombinant Bovine IL-2 Enhancement of Bovine Immunity RAYMOND REEVES	\$150,000
K ST U.	Anti-idiotypes of Bovine Respiratory Disease Viruses: Vaccine Feasibility Studies HARISH C. MINOCHA	\$89,418
Beef and Dairy Cattle Ent	eric Digestive Diseases	
U. of CA-Davis	Modulatory Effects of Cimetidine on Bovine Immune System and Salmonella Carier State	\$148,082
U. of CA-Davis	Humoral Recognition of Gram Negative Core Antigens in Neonatal Calves MARK C. THURMOND	\$84,087
Ia. ST U.	Johne's Disease: Use of Genetic Engineer- ing Techniques in Production of Antigens For Use in Diagnostic Tests CHUCK O. THOEN	\$113,300
U. of CA-Davis	Milk ELISA to Dectect Salmonella dublin in Cows BRADFORD P. SMITH	\$110,935
Beef Cattle Parasitic Dis	seases	
Mont. ST U.	Characterization of Functional Epitopes Against Bovine Coccidiosis C. A. SPEER	\$135,418
Beef and Dairy Cattle Metabolic Diseases		
Cornell U.	Vitimin D Metabolic in Bovine Parturient Hypocalcemia FRANCIS A. KALLFELZ	\$144,142
CO ST U.	Dietary Factors Governing the Expression of Policencephalomalacia in Cattle	\$134,955

#### Fetheric :

Characteristic IN Puscional Agicard (2009). Agadamy 1 with Cocklassa.

#### coasts bifologod plants

Titel squadic in Broton Phrancicas Side ...

Tropic

Distancy Fackers levenessy the hontespina 937a 237 of Posterprepina

#### Dairy Cattle Mastitis

U. of CA-Davis

Bovine Defensins: Natural Antibiotics \$123,451

Against Mastitis Pathogens
JAMES S. CULLOR

Phenotype and Functions of T-lymphocytes \$145,844

and Lymphokines Isolated from Bovine Mammary
Gland Secretion during the Dry Period
R. A. WILSON

Penn. ST U.

Some Effects of Arachidonic Acid Cascade in \$51,621

the Pathogenesis of E.coli Mastitis
R. W. SCHULZ

Total

\$3,185,087

s ... Podlos Geforales: Patase Antiborits
produce Marchite Pathogene

Phonotypa and Twettiens of Introducers 9465 Paland Lyaphuktoss Estates on English Continued Secretion dering the Ory Period

Some Effects of Arabbidants As.a Casadde to 20.0

50.282.83

## SPECIAL RESEARCH GRANTS PROGRAM PROGRM AREA - ANIMAL HEALTH RESEARCH - BEEF AND DAIRY CATTLE PROPOSALS RECOMMENDED FOR FUNDING - FISCAL YEAR 1988

Institution	Title and Principal Investigator	Amount
Beef and Dairy Cattle	Reproductive Diseases	
UN of CA, Davis	Genetic Variation of Bluetongue Viruses Isolated in the Western United States MACLACHLAN	\$109,268
UN of CA	Identifying Bluetongue Virus Groups and Serotype by Nucleic Acid Hybridization OSBORN	\$149,320
MT ST UN	Tritrichomonas Foetus: Antigen Analysis and Immunization BURGESS	\$109,826
CO ST UN	Surveillance and Diagnosis of Bluetongue Viruses by Nucleic Acid Hybridization BEATY	\$118,567
UN of CA	Immunoaffinity Purified Tritrichomonas Foetus Sub-unit Vaccine CORBEIL	\$150,000
UN of FL	The Role of Complement in the Brucellacidal Activity of Bovine Serum HOFFMAN	\$ 92,286
UN of FL	Placental Separation in Cattle: Prostaglandins, Steroids and Leukocyte Function WAGNER	\$149,918

Total \$879,185

CORRECT AND CONTARCIA CORRECT PROCESSION AND CONTRACT PROCESSION OF THE CORRECT PROCESSION OF TH

"Mero and Princeton' Investigator of the

dilles of 10 kylinyabayabil

Seastle Variana of Storages Sall, 108
Vicees Technica in the Western

dentifying Blocker no visual backer and Serer vye ba Newson Acta Nymet alessana

Tribrishment p. oth 11 Arthan Ventura

Herval Laure and Mauricka of Di sepress Virosa by Ballett dor A Sparidiens of

One Rais of Complyant in the Brayes in the Brayes in the Action of Victor of Markey and the Brayes are seen as the

Percental Separation in Gerris: Processagium Cinetics and Consection

081, 408 (sac)

Beef	and	Dairy	Cattle	Respiratory	Diseases

UN of PA		Bovine Herpes Virus Recombinants Expressing Genes of Bovine Respiratory Viruses WILLIAM LAWRENCE	\$125,200
UN of TN		Genetic Organization of a Pneumopathic Strain of Bovine Viral Diarrhea Virus LEON N.D. POTGIETER	\$149,200
UN of MN		Mechanisms of Pulmonary Endothelial and Epithelial Cell Injury in Pasteruella pneumonia SAMUEL MAHESWARAN	\$137,300
UN of NE		Induction of Cellular Immunity to BHV-1 by Anti-clonotypes SUBRAMANIAN SRIKUMARAN	\$149,982
WA St UN		A Unique Antigen of Hemophilus Somnus as a Potential Immunogen MICHELE YARNALL	\$ 34,842
KS ST UN		Cytokine Immunomodulation in Bovine Respiratory Disease FRANK BLECHA	\$149,981
UN of NE		Interaction of Persistent Viruses with the Bovine Immune System FERANDO OSORIO	\$118,829
OK ST UN		Construction of a Gene Deletion BHV-l Vaccine Virus RICHARD EBERLE	\$148,540
OH ST UN	Wooster	Hybridization Probes: Detection and Pathogenesis of Bovine Viral Diahrrhea Infections KENNY BROCK	\$149,914
MI ST UN		Passive Immunization and Neutrophil Function in Bovine Pneumonia Pasteurellosis ROBERT WALKER	\$ 72,000

Beef and Dairy Cattle	Enteric and Digestive Dis	eases	
VPI and ST UN	Cellular Fatty-acid Identification of Anaerob Bacteria WALTER MOORE	ic	\$110,000
UN of IL	A Molecular Phylogeny of Mycobacteria Directed to Johne's Disease Diagnosis DAVID STAHL		\$135,000
Beef and Dairy Cattle	Metabolic Diseases		
IA ST UN	Etiology and Immunologica Consequences of Fatty Liv and Ketosis in Dairy Cows JERRY YOUNG		\$100,000
Dairy Cattle Mastitis			
LA ST UN	Immunostimulation of Bovi Teat End Tissues STEPHEN NICKESON	ne	\$117,000
CORNELL - NY	Immunological Defense Mechanisms of Bovine Mammary Gland NEIL NORCROSS		\$148,557
Beef Cattle Parasitio	Diseases		
UN of ND	Development of an Anti-Ti Vaccine: Purification of Ixodid Gut Antigens STEPHEN WIKEL		\$ 49,966
UN of CA	Immunoglobulin E Response in Bovine <u>Ostertagia</u> Infection LAUREL GERSHWIN	s	\$116,246
UN of FL	Range of Hypobiotic Strai of <u>Ostertagia ostertagi</u> Assessed Using DNA Marker JOHN DAME		\$149,737
OK ST UN	Characterization of Anaplasma marginale in Ti Salivary Glands KATHERINE KOCAN	ck	\$141,608
		Total	\$1,068,114

### The Carrie R old pay Marriage I gran

Colimbar Setty-orid Edecatification of Assembla Britishin

ONDER FEET LAND

to parales Porbace of the Conference of the Conf

w Eife

#### gaenanic silada som

et congradoratedas.

Independente to the transporter to the season of the season

enimal to unitournisanguam) Control of the same Sections of the same

> tomenskingten, Deferra Merhare a. – f Bertra Mosmacy D'anu MSE) kektret

> > 中子、自己的过去

FIRST AND ASSOCIATION OF THE PROPERTY OF THE P

esescelabelta & Pasponsa \* Sov es Osternasis esection estat. Consum

of Hypordakle Straigs

6.6.6

secesiant to of

611 \$30.18

MA. 16:0

. 8

, 84 E

Institution	Title and Principal Investigator	Amount
Beef and Dairy Cattle	Reproductive Diseases	
UN of CA - San Diego	Diagnosis of Bovine Trichomoniasis with Recombinant Antigen LYNETTE B. CORBEIL	\$149,997
UN of CA - Davis	The Pathogenesis of Bluetongue Virus Infection of Cattle N. JAMES MACLACHLAN	\$148,951
UN of TN	Transforming Growth Factors in Early Pregnancy in the Cow JOHN ERBY WILKINSON	\$149,653
VPI & ST UN	Prevention of Haemophilus somnus Reproductive Disease with a Subunit Vaccine GERHARDT G. SCHURIG	\$130,000
OK ST UN	Identification of T Cell Vaccine Candidates for Brucella abortus in Cattle JOHN H. WYCKOFF III	\$ 40,000
UN of WI - Madison	Role of Cytotoxic Lymphocytes in Protective Immunity to BVD Virus RONALD D. SCHULTZ	\$ 99,979
UN of AL - Auburn	Development of Zona Pellucide- intact Bovine Embryos After Chemical Disinfection DAVID A. STRINGFELLOW	\$ 72,686
	Total	\$791,266

TRUE TO THE TRUE OF THE STATE O

entend for townself

neg fromewords eff eff to the state of the s

ns of fire and the second seco

February of Factorial Representation to the Section of the Section

the second for the second seco

1-10:

Institution	Title and Principal Investigator	Amount
Beef and Dairy Cattl	e Respiratory Diseases	
UN of WI - Madison	Constitutive Resistance to Herpesvira Infection in Transgenic Mice GEOFFREY J. LETCHWORTH	1 \$150,000
UN of WI - Madison	Effects of 4-Ipomeanol on Bovine Vira Pneumonia WILLIAM L. CASTLEMAN	1 \$119,469
UN of CA - DAVIS	IgE, Bovine Respiratory Syncytial Virus, and Allergic Reactivity in Cattle LAUREL J. GERSHWIN	\$117,384
CO ST UN	Epitope Specificity of the Humoral Immune Response to Bovine Herpesvirus Type l JAMES K. COLLINS	\$135,077
UN of MD	Detection of Bovine Respiratory Syncytial Virus Infections by Nucleic Acid Hybridization Probes SIBA K. SAMAL	\$149,997
KS ST UN	Molecular mechanisms of immuno- suppression in bovine respiratory disease P. GOPAL REDDY	\$ 78,440
OK ST UN	A Subunit Vaccine for Bovine Pneumonic Pasteurellosis DEREK A. MOSIER	\$ 96,744
CO ST UN	Cold-induced Hypoventilation and Altered Pulmonary Deposition/ Clearance in Calves ALAN TUCKER	\$115,101
IA ST UN	Diagnostic Reagent for Bovine Respiratory Mycoplasmas R. F. ROSENBUSCH	\$100,000
AUBURN UN	Isolation of the Gene Encoding kD Outer Membrane Protein of Haemophilus somnus LLOYD H. LAUERMAN	\$ 49,999
	Total \$	1,112,211

Institution	Title and Principal Investigator	Amount	
Beef and Dairy Cattle Enteric and Digestive Diseases			
UN of FL	Anti-idiotypic Antibodies for Vaccination Against Bovine Cryptosporidiosis MICHAEL W. RIGGS	\$132,959	
LA ST UN	Immunogenicity and Antigenic Diversity of Bovine Coronaviruses JOHANNES STORZ	\$100,000	
UN of WI - Madison	Bovine Endotoxemia: Identification of Mediators and Their Pattern of Release SUSAN D. SEMRAD	\$ 38,628	
UN of CT	Role of Coronavirus in Winter Dysentery of Dairy and Beef Cattle HERBERT J. VAN KRUININGEN	\$ 76,543	
UN of GA	Endotoxemia in Dairy Cattle: Mechanism of Reticulo-ruminal Stasis E. SUSAN CLARK	\$ 33,172	
OH ST UN	Protein and Epitope-specific Immune Responses to Bovine Coronavirus in Calves LINDA J. SAIF	\$100,000	
Beef and Dairy Cattle	Metabolic Diseases		
UN of TN	Toxic Fescue Alkaloid Effects on Catecholamine Receptors in Bovine Vasculature JACK W. OLIVER	\$125,000	
CO ST UN	Abnormal Lipid Utilization and Liver Dysfunction in Dairy Cattle CHARLES R. CURTIS	\$125,000	
Dairy Cattle Mastitis			
PA ST UN	Effects of the Bovine Mammary Gland Environment on Leukocyte Markers and Function RICHARD A. WILSON	\$120,000	

SECTION PARTY PROPERTY PARTY P

Title and tainetyal Tomestigate:

Totale Entering and Otgospiling from .

Anti-fargrypts Antibodies E.: Sill

Vacrination Against

Autoria (prisonale de la companionale de la compani

\*2018 . 1348774

200 0008 - Enopland de valoria despeci

inveit so i saevad

THE REPORT OF THE PROPERTY OF

LONARVIES STORES

Boutes Endotement: 1: Them: thecaster

of Mediacors and Their c

20108 10

SALERY D. SEMBRE

Role of Coconavirs : Person to sion

Dysantery or Oally tod bas

57, 719

SETTIFF LOW MAY IT THERE SEE

Endormento in Daley Large 1208.

Machartan of to entradorA

183/5

NULTE MISHE SE

PBG. 8618 - - Elenantario del Paraccioni

I wasted to oppose a to about our

THE POST OF THE PROPERTY OF TH

TRACE I ACCIONA

Merchalic Diseaser

Toxia Feacus Albahaya CEsers \$125.000

on Categorale Brownians in

mulaicosay anived

20 CLC . 4 2025

Abnormal Light United Interests of the COO

inver Bystungsion to dairs

### Beef Cattle Parasitic Diseases

CO ST UN

Eimeria bovis Proteins Expressed \$110,000 on the Surface of Infected Cells Induce Protective Immunity DAVID WESLEY REDUKER

December 2010 Professor 2000 College C

Institution	Title and Principal Investigator	Amount
Beef and Dairy Cattle	Reproductive Diseases	,
Univ. of IL	Bovine Neutrophil Function and Periparturient Disorders W. C. WAGNER	\$149,922
Ohio State Univ. (Wooster)	Transmission of Bovine Viral Diarrhea Virus from Persistently- Infected Embryo Transfer Donors K. V. BROCK	\$149.947
Univ. of California (Davis)	Genetic Probes for the Diagnosis of Leptospire Infection of North American Cattle and Swine R. B. LEFEBVRE	\$146,570
Texas A&M Univ.	Estrous-Specific Volatiles from Bovine Body Fluids W. R. KLEMM	\$150,000
Texas A&M Univ.	Role of Bovine Luteinizing Hormone in Regulation of Anestrus D. W. FORREST	\$148,419
North Dakota State U.	Heterologous BVDV Detection and Comparison Using Oligonucleotides and PCR E. S. BERRY	\$ 49,106
	TOTAL	\$793,964

RENGRAL PREMINENT HEART'S TRUMP NO TOTEN ON CH. CNIMER FROM RESEARCH - LOW POR TOTEN ON CH. CHRENDE FOR REGIS OF - FERGLE VALUE ON CH.

Title and Primary Languages of Service Service

Secondary was Mill Determine and 9 19,10a Comparison is any Olygonalist files

Institution	Title and Principal Investigator	Amount	
Beef and Dairy Cattle Respiratory Diseases			
Oklahoma State Univ.	The Role of Eicosanoids in the Pathogenesis of <u>Pasteurella</u> haemolytica Infection CYRIL R. CLARKE	\$124,284	
Texas A&M University	Molecular Genetics of Interferons and Resistance to Bovine Respiratory Disease JAMES E. WOMACK	\$150,000	
Univ. of Nebraska	Molecular Characterization of Bovine Herpesvirus 1-Host Cell Receptor Interactions CLINTON J. JONES	\$149,940	
Univ. of Tennessee	Cloning and Sequencing of BRSV G glycoprotein and Detection of Strain Divergence L. N. D. POTGIETER	\$149,974	
Univ. of Wisconsin	Identification of BHV-1 Proteins by T Cell Immunoblotting GARY A. SPLITTER	\$150,000	
Univ. of Nebraska	Molecular Bases of BVD Virus Cytopathology and Disease RUBIN 0. DONIS	\$133,340	
Oklahoma State	Identification and Isolation of the <u>Pasteurella haemolytica</u> Leukotoxin Receptor KENNETH D. CLINKENBEARD	\$150,000	
Univ. of Wisconsin	Purification, Binding, and Leukocyte Modulation of P. haemolytica Leukotoxin CHARLES J. CZUPRYNSKI	\$ 98,340	
	TOTAL	\$1,105,878	

STATAL AND SERVICE PROBLEMS SERVICE PROGRAM AND CATALINA - ARTH COLLAND FOR CATALINA - PROGRAMMENTAL POR FORM FROM FROM AN - PROGRAMMENTAL PROBLEMS - PROBLEMS - PROGRAMMENTAL PROBLEMS - PROBLEMS

Title and Passagnal Lavieting for some

seament interiors fishers

The Role of Litt energy to the 201.282 cates and the cates of Languages of Languages of the cates of the cate of the c

Helecula: Mandeleo of Interferon 1775. 200 and Statement of Section 1875. 200 Res Detroit of Section 1886. Res Detroit of Section 1886. Research of

Moleculor Thermy trates how of Staf Dun Bowline Frederitus L. Bos Holl Req wher Edfersvilons CLE 167 J. Holls

Closing our Angerous, Market Ales C. pingspressin a.a Deter on of sursin Minergesse L. U. G. 1074 LETER

> Identification 53 225-1 Postenso by W Cell Timeschietzing GARY A. SPULTERS

> > Moleculer Renes of the Albasian Cyr. elegy and crimeran

088 . ON E

Institution	Title and Principal Investigator	Amount
Beef and Dairy Cattle	Enteric and Digestive Diseases	,
Ohio State Univ.	Winter Dysentery in Cows: Etiology and Analysis of Coronaviruses from Outbreaks LINDA J. SAIF	\$149,997
Univ. of Nebraska	Interaction of Persistent Viruses with the Bovine Immune System: The Cellular Basis of BVDV Lymphotropism. FERNANDO A. OSORIO	138,205
Univ. of Wisconsin	Predictive Value and Economics of Ten Tests for Paratuberculosis MICHAEL T. COLLINS	56,468
Dairy Cattle Mastitis		
Univ. of Illinois	Autocrine/Paracrine Control of Mammary Lactoferrin During Mastitis WALTER LEE HURLEY	148,748
Univ. of Tennessee	Factors Influencing Bovine Mononuclear Cell Function During the Nonlactating Period STEPHEN P. OLIVER	98,338
Beef Cattle Parasitic	Disease	
Univ. of Florida	Identification, Cloning, and Immunogenicity of Anaplasma marginale Invasions  DAVID R. ALLRED	138,150

FRANCIS PROMINE ANTICOMENTAL PROMINE PROMINE PROMINE ANTICAR TOTAL PROMINE PROMINE ANTICAR PROMINE PRO

ution Thile and Tripeirs Installence Amn. J.

a Date Carrie Install and American I was 2220.32

Print , and Analysis
Companyi ruasa In p

L B STW S BOY STREET SCANDERS

ADDRESS ST ACTU DANABLE

ADDRESS ST ACTU DANABLE

COMMUNICATION OF STREET STREET

COMMUNICATION OF STREET

of Maconsia Davieters Vales and Areast Palks.

In you have for Pal de

TANGE TO Instead of the Property of the Line of the Control of the Line of

Pactors Industry 43 ind Boscopelar Cell Parellon Ducing the Amilorisus. Perlat STEPMEN 2 OLLES

Institution	Title and Principal Investigator	Amount
Montana State Univ.	Functional Recombinant Antigens Against Bovine Coccidiosis CLARENCE A. SPEER	\$149,369
Oklahoma State Univ.	Cultivation of Anaplasmosis marginale from Tick Salivary Glands into Cell Culture KATHERINE M. KOCAN	\$ 56,468
	TOTAL	\$935,743



CSRS

Animal Health Research - Special Grants

#### BEEF CATTLE

Year	Number of Projects	Dollars
1982	28	\$ 2,895,606
1983	28	\$ 2,295,416
1984	25	\$ 2,930,867
1985	19	\$ 2,421,887
1986	14	\$ 1,876,375
1987	14	\$ 1,876,375
1988	15	\$ 1,907,793
1989	17	\$ 1,951,991
1990	14	\$ 1,788,937

#### DAIRY CATTLE

Year	Number of Projects	Dollars
1982	14	\$ 1,269,194
1983	16	\$ 1,231,046
1984	13	\$ 1,208,936
1985	10	\$ 1,035,193
1986	11	\$ 1,306,712
1987	11	\$ 1,306,712
1988	11	\$ 1,275,294
1989	9	\$ 912,786
1990	8	\$ 1,046,648

#### A PERSON CARRES

10000		4.00 0.25 to bound	
2,037,867			
2,521, 341			
1,876 273		A. E	
	ę		
Pellara 1.200, 78			
80 ,695.1			
ec , 695. 1			
80 ,695.1			
200, 200, 200 1,003, 200, 200 1,003, 100			
80,805,181,183,183,183,183			
200, 200, 200 1,003, 200, 200 1,003, 100			

## COMPETITIVE RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH BEEF AND DAIRY CATTLE DISEASES

### GRANTS AWARDED FOR FISCAL YEAR 1985

ORGANIZATION & Investigator	AMOUNT	TITLE
University of Illinois KNIGHT	\$105,000	Structure and Organization of Bovine Immunoglobulin Genes
Amherst College GOLDSBY	\$239,700	Cloning Bovine Ig Genes and Their Use to Construct Functional Chimeric Molecules
North Carolina State Univ. KLAENHAMMER	\$104,000	Transfer, Expression, and Cloning of Phage Resistance Genes in Lactic Streptococci
University of Nevada NICHOL	\$129,700	A Molecular Approach to Vesicular Stomatitis Epizootiology, Disease & Control
Cornell University DUNNY	\$100,000	Bacteriophage Resistance in Dairy Streptococci
Agric. Research Service USDA GRUBMAN	\$ 70,000	Study of Foot-and-Mouth Disease Virus Assembly and Neutralizing Antigenic Determinants
Texas A & M Research Fdn. WOMACK	\$147,000	Molecular and Somatic Cell Genetics: Mapping the Cattle Genome
Washington State University YILMA	\$140,000	A General Method for the Production of Polyvalent Vaccines in Vaccinia Virus Recombinants
Washington State University BARBET	\$ 95,900	Development of a Recombinant DNA Derived Vaccine Against Bovine Anaplasmosis
Washington State University REEVES	\$100,000	Cloning of Cellular Genes Responsive to Infection and Transformation by BLV
University of Wisconsin SPLITTER	\$140,000	Characterization of the Bovine Major Histocompatibility Complex

### COMPETITIVE EXEMPTE MARKET MEMORY AND ARREST OF THE MARKET. - DISEASE.

#### CLASS AVABBLE FOR FIREM. YEAR 1985

man command of the CES (		
Strooters and Organization		
Closing Bovins Ig Denes and Incir Une to Constitutes Functional Chicaria Holdewing	231,700	
Pression. Engrapelot, and Choning of Engr Bealframen		State Orly.
A Molecular Approach 's Festender Strestiffs Eptechalology, Discova > Control		Devade
Study of Foot-and-Mouth Da 1969 Visua Assembly and Meutralising Antigenir Determinants		8 4 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Holoculer and Summets Cell Generales: Mapping top Cattle Genome		sit Pin.
A General Method For the Freduction of Polyvaless Vaccines in Vaccinta Virus Etcomotherts		
Davelopment of a Meccephagel New Derived Vaccine Against Borine Amaplasmosis		
Clouder of Cellular Green Presponsive to Infection and Transformation by 255		
· colored of a lambage		

# COMPETITIVE RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH BEEF AND DAIRY CATTLE DISEASES

### GRANTS AWARDED FOR FISCAL YEAR 1985

ORGANIZATION & Investigator	AMOUNT	TITLE
Colorado State University AMANN	\$101,300	Control of Prepubertal Changes in Neuroendocrine Function in Bull Calves
University of Maryland MATHER	\$ 90,700	Distribution and Biogenesis of Mammary Membrane Proteins
Pennsylvania State University BAUMRUCKER	\$100,000	IGF <sub>1</sub> Stimulation of Bovine Mammary Tissue Growth
University of Texas System C.C.M.D. Anderson Hosp. & Tumor Institute-FRAZIER	\$150,000	Genes Coding for Insulin Immunoreactivity in Fetal Bovine Pancreas Development
Washington State University CORBEIL	\$124,200	Prevention of Stress Related Mastitis with Recombinant Bovine Interferon
Washington State University GRISWOLD	\$150,000	Bovine Testicular Transferrin
University of Wisconsin FIRST	\$161,500	Ontogeny and Control of Development of Bovine Preimplantation Enbryos
Washington State University CORBEIL	\$132,000	Suboptimal Bovine Reproductive Efficiency: Trichomoniasis
Agric. Research Service USDA TABATABAI	\$171,000	Recombinant Brucella Proteins for Vaccines and Diagnosic Reagents
Cornell University WINTER	\$149,000	Protection Induced in Rats to Brucella abortus by Viable and Nonviable Vaccines
Virginia Polytechnic Tast. SCHURIG	\$160,150	Cloning of B. Abortus Antigens Involved in Protective Immunity
Total	\$2,861,150	

### MUNCLES AND THE STRABBLE AVERTORISMS MUNCLES AND THE AND THE STRABBLE AND

#### PROF MARY LABOR WILLIAM STRANG

AT THE STREET STREET

Grant of Pary Sortol, mura in New merd, etc. a buncata Bull state		Str e University
Description to any Plaganests:	000,00 ?	
Active in applicable will be a production of the control of the co		ent: Seate f mereling
Teas Coding for Inagila  Laurent fritzing in Paral Renna  Facton Levalopaett		
		a feace University
Rovine Testicular Transla		
is 1 tand not verposed  established to the seal procedures all the seal procedures and the seal procedures are seal procedures as a seal procedure		
Subo; tmel Bowine Kercogwiilra Efficency: Trichomonissis		
Recorbicant Brucella Proteins for Vaccines and Disconsis Reagears		
Procession Induced to Refs to Breesi abores by Vishia and Second abores by Vishia and Second abores and Second abores and Second abores abores and Second abores ab		
Clouding of B. Jestica Crowns		

### COMPETITIVE RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH BEEF AND DAIRY CATTLE DISEASES

### GRANTS AWARDED FOR FISCAL YEAR 1986

ORGANIZATION & Investigator	AMOUNT	TITLE
University of Alabama ROY	\$ 50,000	Bluetongue Virus Morphogenesis Using Recombinant D N A Technologies
University of CA-Davis HIRSH	\$ 80,000	Molecular Coning of a Gene Encoding an Outer Membrane Protein of Pasteurella
University of CA-Davis STOTT	\$180,000	Characterization and Synthesis of Bluetongue Virus Peptides Conferring Protective Immunity
Zoological Soc. of San Diego HEUSCHELE	\$ 70,000	Molecular Biology of Malignant Catarrhal Fever Viruses
University of Florida PALMER	\$ 90,000	Generation of Synthetic Peptides Capable of Inducing Protection Against Bovine Anaplasmosis
University of Florida HUTT-FLETCHER	\$150,000	Genes of Malignant Catarrhal Fever Virus Coding for Protective Immunogens
University of Illinois HURLEY	\$100,000	The Bovine Mammary Immunoglobulin G Receptor
University of Michigan MARRS	\$202,600	Molecular Studies of the Hemolysin Gene(s) of Moraxella bovis
Molecular Genetics, Inc. COLLETT	\$120,000	Molecular Characterization of Bovine Diarrhea Virus
University of Pennsylvania LAWRENCE	\$150,900	Development of Bovine Herpesvirus I as Expression Vector for Genes of Other Bovine Pathogens
Texas A & M Research Fdn. WOMACK	\$100,000	Gene Mapping in Cattle by In Situ Hybridization of G-Banded Chromosomes

### COMPRETERY FRANKERS CANNOT PRESENT OF PROBRIMS OF PROBRESS OF PROBRES OF THE RESENT OF THE PROBRES OF THE PROBR

#### 1991 ALT LADSIE BUT INTERNA YERARD

20.73		2 11
Alverone result and the expense of a little of the contract of		
	866 C6 - 3	
Chiracte, Leniina nas Siathas s ef Bloerson, siittiid 250 dist (safatting 210 ostili Iranasiv		especial CA-Devis
		oget6 808 10 .sc
Comeration S Symthetic Pastians Courts of Inductor Control Service Arap's seeding		abbroil lo
Ger-e of Polignan Catarras) Pavas strue Coding for Isotersive Lamnogens		ablvoj V Še
The Barine Manarry Immanaglabulin C Ferretse		8
Molecular Scudies of the Memoirste Gene(s) of Memoirste Devis		
Holecula: Cheracterises of Borlon Itarron of		
nor perjos la		
Goos Merging in Coirle by inte Hybridisacion of nace. Chroner once		

# COMPETITIVE RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH BEEF AND DAIRY CATTLE DISEASES

### GRANTS AWARDED FOR FISCAL YEAR 1986

ORGANIZATION &	AMOUNT	TITLE
Baylor College of Medicine ROSEN	\$100,000	Identification of D N A Sequences Required to Target Proteins to the Mammary Gland
Utah State University LI	\$100,000	Molecular Cloning Genome Analysis and Gene Probes of Bluetongue Viruses
Washington State University WESLEID	\$107,000	Molecular Biology of Larval Tapeworm Antigens
Washington State University DAVIS	\$ 80,000	Characterization of Bovine Leukocyte Differentiation Antigens with Monoclonal Antibodies
Washington State University CORBEIL	\$192,000	Immunity to <u>Haemophilus somnus</u> Induced Reproductive Failure
Auburn University MARPLE	\$121,400	Altered Thermoregulatory Mechanisms as a Basis for Fescue Toxicity in Cattle
University of Alabama YOUNG	\$ 65,000	Molecular Mechanisms of Bovine Development
University of Arizona ALLEN	\$176,500	Bovine Growth Factors Involved in Myogenic Cell Proliferation
University of California STOTT	\$ 60,000	Ontogeny of Bovine Lymphocyte Subpopulations
Iowa State University TRENKLE	\$ 51,600	Growth Hormone and Somatomedin-C Relationships in Growing Cattle
Iowa State University ROTH	\$117,000	Cytokine Regulation of Steroid Effects on Bovine Neutrophils
Central Plains Area ARS, USDA KLEMCKE	\$100,000	Cellular Mechanisms of Response and Adaptation of the Adrenal During Acute and Chronic Stressors

### THE STATE OF A STATE O

#### AND STATE OF THE STATE OF THE STATE STREET

F THE THE

10.00 00 00 00 00		orisher to
	.m /5000	gada son. r
est fegt t	77 jaga, 77	
uri . seg.	700. F11	goin remind + 10 s
001 Re e 19 01 Re pro-1 0000 M = 452008 041 .		1 Teere Univer
lings for the last th		gilorevial ofe
nechtates aft beint La : "" ame tourist getainei	\$121 <sub>x</sub> 400	
Polence Machanisma		ලක්තරක් වූ ප
Devine Urewith Parter in them. the familiar cour		, <u>consplay</u>
Ontogeny of sea rapposed as some		Cellsonals
Store in Norman and Serving Latela Relationaring in Granting Latela Sproffine Regulption of Storest Riferia on Serine Hours phil.		

### COMPETITIVE RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH BEEF AND DAIRY CATTLE DISEASES

### GRANTS AWARDED FOR FISCAL YEAR 1986

ORGANIZATION & Investigator	AMOUNT	TITLE	
Kansas State University BLECHA	\$ 60,000	Molecular Mechanisms Involved In Stress-induced Immune Alterations in Cattle	
Temple University KIRBY	\$220,000	Control of Contact Activation in Cattle	
University of Wisconsin BREMEL	\$ 60,000	Hormonal Control of Growth and Differentiation of Bovine Mammary Tissue	
Louisiana State University ENRIGHT	\$ 93,300	Interaction of Bovine Macrophages with Brucella abortus	
Oklahoma State University ESSENBERG	\$147,000	Nutrient Utilization in Brucella abortus Studied by Cloning the Genes in E. coli	
University of Wisconsin SPLITTER	\$200,000	T-Lymphocyte-macrophage Interactions to Brucella abortus	
University of Arizona WISE	<b>\$198,</b> 081	Regulation of Gonadotropin Secretion During Postpartum Anestrus	
University of CA-Davis BONDURANT	\$142,400	Diagnostic and Clinical Studies on Bovine Trichomoniasis	
Iowa State University ANDERSON	\$134,428	Relaxin on Control of Parturition in Cattle	
University of Missouri GARVERICK	\$104,547	Etiology, Turnover Rate and Hormone Secretory Dynamics of Ovarian Cysts in Dairy Cattle	
Cornell University FORTUNE	\$250,000	Ovarian Follicular Development and Function in Cattle: Relative Roles of LH and FSH	
Washington State University BESSER	\$100,000	Increasing Neonatal Calf Survival: Exploiting a Novel Mechanism of Enteric Immunity	
West Virginia University BUTCHER	\$110,000	Roles of the Follicle and Oocyte in Conception Rates in Cattle	
Total	\$4,382,856		

#### CRANTS ANABORR FOR FIRSTAL TEAT 1907

		meeting to the state of the sta
Grinessity		leviousi essissiosi sain sidi essain bessairetaene M elevio ne vaciasesia
	300, 3856	
		Rom mal Des rol / Growth and Pills was your Cortex Plantancy was a
Cutacontu.		Sassession of revine Maccophago, when brevenia 1999; i.u.
		Antifoot Utilization to Profession of the Country o
niekonowy Po C		Tel vapoucy severa crophera
		Disgressia Telehomoniaelo
		Bisology, Turnova; Rata and Moreone Secrercry Dynavice on Ovarian Cynta in Daily Chille
		Overten Folltanker Development and Purclant in Carile: Relative dates of Lik and FSN
		Increasing Monaval Caid Sarvival: Espiciff & Obect Machania at Epocali Rimunity
		Found has disting say to make

# COMPETITIVE GRANTS PROGRAM AREA: CATTLE GRANTS AWARDED FOR FISCAL YEAR 1987

ORGANIZATION & Investigator	AMOUNT	TITLE
La Jolla Biological Lab San Diego, CA GINGERAS	\$135,000	Establishment of DNA Virus- resistant Bovine Cell Lines
Stanford University Stanford, CA SCHOOLNIK	\$140,000	Moraxella bovis Pili. Molecular and Genetic Studies
Univ. of Illinois Urbana, IL LEWIN	\$110,000	Molecular Analysis of the Bovine Major Histocompatibility Complex
Amherst College Amherst, MA GOLDSBY	\$180,000	Immunomodulation by Monoclonal Anti-Ids to Pathogen-reactive Mono- and Polyclonal Ids
Molecular Genetics, Inc. Minnetonka, MN COLLETT	\$ 75,000	Immunogenicity of Isolated Bovine Viral Diarrhea Virus Proteins
North Carolina State Univ. Raleigh, NC KLAENHAMMER	\$190,000	Molecular Characterization of pTR2030-directed Phage Resistance in Lactic Streptococci
Univ. of Nevada Reno, NV NICHOL	\$205,000	A Molecular Approach to Vesicular Stomatitis Epizootiology, Disease Diagnosis and Control
Cornell Univ. Ithaca, NY BATT	\$124,000	Inhibition of Streptococus lactis Bacteriophage by Antisense mRNA
Cornell Univ. Ithaca, NY DUNNY	\$170,000	Biochemistry and Genetics of Bacteriophage Resistance in Dairy Streptococci
Texas A&M Res. Fdn. College Station, TX WOMACK	\$142,000	Molecular and Somatic Cell Genetics: Mapping the Cattle Genome
Univ. of Washington Seattle, WA MOSELEY	\$220,000	Genetic Organization and Function in the Production of F41 Bacterial Adhesin

### COMMENT SING THE CONTROL OF SING STATES OF THE CONTROL OF SING SING SING SING SINGS OF SINGS

r frione

### CATTLE (continued)

Univ. of Wisconsin Madison, WI LETCHWORTH, III	\$100,000	Antibody Inhibition of Viral Protein Interaction with Mucosal Epithelial Cells
Kansas State Univ. Manhattan, KS BLECHA	\$239,500	Immunomodulation and Stress Hormone Interactions in Bovine Lymphocytes
Pennsylvania State Univ. University Park, PA BAUMRUCKER	\$130,000	IGF <sub>l</sub> Stimulation of Bovine Mammary Tissue Growth
Univ. of Wisconsin Madison, WI FIRST	\$142,500	Ontogeny and Control of Development of Bovine Preimplantation Embryos
Univ. of Wisconsin Madison, WI CZUPRYNSKI	\$120,000	Molecular Events in Interferon and Interleukin-l Stimulated Bovine Neutrophils
Scripps Clinic & Res. Fdn. La Jolla, CA HEFFRON	\$310,300	Transposon Mutagenesis in Brucella abortus to Identify New Virulence Genes
Cornell Univ. Ithaca, NY WINTER	\$140,000	Immunity in Brucellosis: Comparative Response to Virulent and Attenuated Strains
Univ. of California San Francisco, CA FUJII	\$150,000	Bovine Uterine Epithelium: Growth and Hormonal Responses
Univ. of Connecticut Storrs, CT MILVAE	\$125,000	Follicular Granulosa Cell Contributions to Bovine Corpus Luteum Function
Vanderbilt Univ. Nashville, TN GARBERS	\$102,000	Signal/Transduction Mechanisms in Bovine Spermatozoa
Texas A&M Res. Fdn. College Station, TX WILLIAMS	\$152,000	Mammary Somatosensory Signalling and Postpartum Anestrus in Suckled Cows
TOTAL \$	3,402,300	

Procedure Control of the Control of the Control of Collection of the Control of Collection of the Control of Collection of the Collection	(900 , 6 <b>4)</b> (9	
	00 ,08Sc	
n end en or s.		amia State Univ. Park. PA
be all of religion of the soft		
	000 0100	E Clinic > Rea. Pdn.
no de la	om, west	7 7 • •
dente and busyons! Reeps 304		ed a special
Solitoria: Gratulous Coll Comrabullous to Savios Cornas Lute m Function	000, 1218	
Signal/Transduction Mechamer.		
Manually Spect reseasory Sternalling and Fostpersus Assertus in Suckled Long		

### COMPETITIVE RESEARCH GRANTS PROGRAM PROGRAM AREA: ANIMAL HEALTH RESEARCH CATTLE

ORGANIZATION & Investigator

AMOUNT

TITLE

	GRANTS AWARDED FOR FI	SCAL YEAR
University of Minnesota St. Paul, MN 55104 M. S. Collett	\$75,000	Immunogenicity of Isolated Bovine Viral Diarrhea Virus Proteins
University of Minnesota St. Paul, MN 55104 M. S. Collett	\$140,991	Molecular Characterization of Bovine Viral Diarrhea Virus
University of Wisconsin Madison, WI 53706 G. A. Splitter	\$150,000	Characterization of Bovine MHC Class I and II Genes in the Lymphoblastoid Cell Line BL3
Stanford University William W. Ruehl	\$150,000	Moraxella bovis Pili. Molecular and Genetic Studies
Texas A&M Research Foundation Douglas K. Struck	\$200,000	Molecular Basis of Exotoxin Activation and Specificity
Texas A&M Research Foundation Loren C. Skow	\$176,000	Organization and Expression of BoLa Class I Genes
Baylor College of Medicine Jeffrey M. Rosen	\$450,000	Identification of DNA Sequences Required to Target Proteins to the Mammary Gland
University of Wisconsin Judd M. Aiken	\$100,000	Virally Triggered Toxin Genes as a Novel Antiviral Defense Mechanism
University of Wisconsin Rodney A. Welch	\$200,000	Molecular Genetic Analysis of the Pasteurella haemolytica Leucotoxin

### TARKE PARENT FULLY FORESTER TARESTER FOR STANDARD FOR STA

magazina.

7.45

### or a state of the second

te breck po n tro position		
। 811 ∉ল cc		
ession of the confidence of th	<u>- জেল এই।</u> ই	
i to ime co	36, 62.53	
end sich		
veresuler asig er Brosest asign and Specific		
Organization on Apresency na (ass ' George	ઉઝલ, લઈ ડે ક	
Tiontification of talk the tender of talk the tender of te	000,0248	emijiúad මිත ද
Mgrally friggered fox feet is a Move: Activitud Defence Mochanism	600,0006	

Molecular Canadic Analysic of the Pacteurella hossolyrica cotoxis

USDA/ARS Mid-West Area Louisa B. Tabatabai	\$180,000	Recombinant Brucella Proteins for Vaccines and Diagnostic Reagents
Virginia Polytechnic Institute and State University Gerhardt G. Schurig	\$175,438	O-Side Chain Mimicry A Possible Answer to Brucella Immunity
Virginia Polytechnic Institute and State University	\$ 94,862	The Nature and Consequences of Superoxide Dismutase Expression in Brucella abortus

Total \$2,092,291

